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THE NINTH CENSUS OF SOCIAL SCIENCE RESEARCH IN SOUTHERN UNIVERSITIES

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MONTHLY BULLETIN

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EDITORIAL - SOME HIGHLIGHTS

I General Economic Scene

State :

Annual Budget and Plan :

During March and April the legislature considered department by department the budget for 1979-80 and approved it as summarised in the last issue (pages 180-83). Some of the demands were passed in that discussion because of lack of time. In approving the industry demand, the government announced that new industries set up in rural areas would be granted tax exemption. Also the government granted from April 1979 dearness allowance increases to its employees, including teachers in aided educational institutions ranging from Rs. 6 to Rs. 30 and raised the age of retirement from 55 to 58. These concessions will cost the exchequer Rs. 12 crores. The Annual Plan for 1979-80 also was included in the budget approval. In April the state plan for 1978-83 was finalised and is to be discussed with and received by the Union Planning Commission in early May. NDC is expected to meet in mid May to approve finally the 5 year plan.

Power :

In March and April the power situation took a turn for the worse in the state. Due to erratic functioning of the Neyveli and Ennore Thermal Stations and an all round increase in demand, power cuts of maximum demand, staggering of holidays etc. have been imposed. From March 27, a 30 per cent cut on maximum demand of high tension noncontinuous industries and a 15 per cent cut on continuous process industries went into effect in the state. Holidays of noncontinuous HT industries are to be staggered. The maximum demand at the end of March was 1,650 MW and the availability 1,450 MW (hydel 600 MW, Ennore Thermal 300 MW, Basin Bridge Thermal 50 MW, Neyveli 300 MW and Kerala purchase 200 MW). The staggering of power supply affected the working of textile and engineering industries in the districts to the extent of 50 per cent of textile mills production according to SIMA and 25 per cent in the case of 4,000 engineering units around Coimbatore. Industrial units around Tiruchirapalli report a reduction of production ranging from 15 to 50 per cent — 50 per cent in the case of 1 shift units and 15-25 per cent in the case of units working 2 or 3 shifts. In the case of farmers, the government announced a scheme for clearance of their arrears from April, later deferred to April 30, under which they will pay every month one month's arrears in addition to the payment of that month's bill. From March 30, Neyveli was able to increase its generation from 300 MW to 400 MW and on some days reached 500 MW. The negotiations for purchase of Kerala power continued through March with Karnataka also wanting a share of the surplus Kerala power. No long term agreement was reached between the states except: a) of the total Kerala surplus of 1,200 million units from February to June, Tamil Nadu could draw two thirds of Karnataka and remaining one-third, with a ceiling of 70 per cent for extra power drawn by Tamil Nadu. By the end of February, Tamil Nadu had drawn 540

million units and by mid April 750 million units out of its two-hirds share of the 1,200 million units surplus ; b) Tamil Nadu will pay 18 paise per unit in place of the previous 15 paise and Karnataka 23 paise in place of 18 paise per unit. This is an agreement for 1 year with Tamil Nadu and 4 years with Karnataka. In addition, the government negotiated in April with Andhra Pradesh for 100 MW and was given 50 MW as a first step. Also Tamil Nadu government negotiated a barter deal with Kerala for the supply of additional power, of 5.8 millions against the previous daily 5 million units from April 18 as a result of which it could lift the 15 per cent cut on cement units and supply the additional 90,000 tonnes of cement that Kerala needs. (After cut it was receiving 2.1 lakh tonnes against its need of 3 lakh tonnes. The government announced taking up 4 new power schemes this year at a cost of Rs. 19.90 crores — Lower Mettur (Rs. 10 crores) and Upper Amaravathi (Rs. 2.5 crores), Shanmugnadhi (Rs. 2.5 crores) and Thermal Mettur (Rs. 4.90 crores). The lower Mettur hydel project which will in full cost Rs. 83 crores will be completed by 1982 and generate 120 MW. The thermal station at Mettur will cost Rs. 170 crores with a capacity of 420 MW. These are necessary to meet the growing power demand of Mettur-Salem-Tiruchengodu area, including the Salem Steel Plant. CEA envisages that the Southern region would become self sufficient in power by 1985, with the 2 plants each with 200 MW at Tuticorin, 3 more units with 200 MW capacity each at Neyveli and the 3 more similar units in the second phase in the Seventh Plan. In addition two thermal units are coming up in Karnataka, and a 2,000 MW plant at Ramagundam. From May 1, the power tariff concessions of several HT bulk consumers, such as Railway, cement, caustic soda, fertilisers, aluminium and calcium carbide units are modified and they will pay at 14.20 to 40 paise instead of 10.42 to 30 paise per unit. These increases will yield an additional revenue of Rs. 16 crores per annum, thus reducing the deficit of the State Electricity Board estimated at Rs. 48.66 crores for 1979-80. To speed up the billing and payment of dues, the Board is introducing-on-the spot billing in Madras city to start with and will allow customers to pay the charges through banks.

For the country as a whole, March and April were equally poor in the power area. The worst hit was West Bengal where from April 10 all industries were closed and power supply was less than 50 per cent of the demand, the shortfall being over 300 MW. This affected 1 million workers and involved a loss of Rs. 80 crores of production. Durgapur, against a daily 80 MW, was nil, the third 120 MW unit at Santaldih went out of action, captive generators are not in use because of diesel shortage and their lack of coordination between DVC and the State government in meeting the crisis. Even a fortnight later the power crisis continued with 9 out of the 12 thermal plants going out of order. There was almost total dependence on other states, UP (80 MW) and Orissa (22 MW). There is a serious management failure in this crisis. In addition the transfer of power from the Southern Regional grid (Andhra Pradesh) to the Eastern grid was under exploration, though Madhya Pradesh is finding it difficult to meet its commitment of 50 MW to Tamil Nadu. In Bihar there was a steep fall in power generation due to neglect, lack of proper maintenance, nonsupply of spares and absenteeism at its two main power stations, Patratu and Barauni. Karnataka imposed in April a 20 per cent cut on HT users. Gujarat imposed a power cut of 16 per cent due to low coal stocks with the power plants, involving a pro-

duction loss of Rs. 5 crores per week. Against this somewhat bleak power picture, some states were doing well. In Punjab there was an overall increase in power supply of 40 per cent during the nine months April-December 1978-79, with an increase of 1,223.82 million units of net available energy. Also Haryana's position is satisfactory. Its installed thermal capacity is 197.50 MW. The two Panipet thermal sets of 2 x 110 MW are to be commissioned by mid year and the third unit of 60 MW by September. Thus its thermal capacity will be 477.50 MW and the total installed capacity 1,131.50 MW by the end of 1979. It is taking action now to meet its peak demand of 1,304 MW in 1983-84 involving installing an additional 640 MW. Andhra has reached a comfortable position and is spending Rs. 52 crores on transmission lines to improve its distribution. Work on the super thermal Farakka involving an investment of Rs. 580 crores is under way with the acquisition of 3,000 acres of land. CEA in its annual report puts the country's hydroelectric potential at 76,200 million KW as against 41,000 million KW in 1953-60 with 27,800 MW in the northern region, 7,500 MW in the eastern, 7,600 MW in the western, 13,100 MW in the Southern and 20,200 MW in the north eastern region. The union ministry reports that in 1978-79 new power generation capacity reached the target of 3,000 MW (in 1977-78 it was 2,000 MW), with 2,300 MW thermal and 780 MW hydel. For 1979-80 the target has been established at 3,165 MW. The 12 per cent increase in generation in 1978-79 brought total installed capacity to 29,000 MW. This overall picture and planning seem good but the problems are poor management and general slackness. The thermal plants in the country generated only 87.5 per cent of what they should have between April-January 1978-79. To meet the present shortage, CEA has recommended that adequate standby generating capacity should be available to take care of load shedding by thermal stations due to their forced shut downs which is on the average 14 per cent of the capacity of thermal plants. This high rate of outage can be corrected by sound engineering management. Also to ameliorate the serious loss to industry from load sheddings which are Rs. 6.6 crores for an hour of load shedding by thermal plants, industrial units are going in for captive generators. During 1978, the Union government received applications for 141 captive generators, 53 being from West Bengal. These should be quickly met and the needed diesel provided.

Domestic fuel:

In March and April, there was a shortage of kerosene, due largely to lack of precautions against private traders and consumers going in for panicky buying and storage. The Union ministry for Petroleum and Chemicals had warned in early April this and other states that there would be a shortage of kerosene (as well as furnace oil and diesel), though the supply was maintained at the 1978-79 level. The state government in early April took over the distribution of kerosene, starting with Madras and extending it through the fair price shops in the villages. In Madras city from mid March IOC and other oil companies began issuing kerosene against family cards - four litres per family per month. In April the state government took over the distribution through the Tamil Nadu Civil Supplies Corporation and the Cooperatives and issued 6 litres per card holder per month. Similarly LPG was regulated to meet the temporary shortfall in supply —600 tonnes due to MRL's crude supply situation. Domestic consumers were supplied a cylinder every 35 days. It is expected that this shortage will be relieved soon.

Urban Development and Housing :

In accordance with agreement on Krishna waters, Tamil Nadu government has started investigation for the formation of the left canal from Srisailam Project to take Krishna river waters to Madras city on the basis of which it will construct the canal. Also on the basis of ground water surveys by the Madras Metropolitan Water Board in Tiruvanmiyur, 2.8 million litres of water per day will be available from 3 bore wells for the people in the 12 panchayats recently included in Madras. With the aid of IDA, four pedestrian subways—near the Teachers' College, the Anna flyover, Central station and Walltax road were completed and thrown open to the city public. On the housing side, the State Housing Board will be spending Rs. 40 crores to build one lakh houses in the state through the 1,300 rural housing cooperatives for the economically weaker sections (EWS). Immediately Rs. 4 crores are being spent to build a cluster of 10 houses in a village, with no segregated housing for Harijans.

Transport :

In April, the President of the country inaugurated the twin railway functions, the commissioning of the long promised Madras -Gummidipundi electrified railway as the first phase of the Madras-Vijayawada electrification programme. The second project was the foundation stone laying ceremony of the new suburban railway terminal at the Moore Market side. Madras Central station handled 126 trains of which 65 are suburban trains and with the rapid growth of commuter traffic, the need for a separate suburban terminal becomes urgent. There is also need for planning and working urgently on the quick rate possibly on overhead rail link between Tiruvottiyur and Madras Beach to meet passenger needs between the enlarged Central Station and South and Central Madras. With regard to bus transport, the government announced in April that students in the districts will be given one-third fare concession for bus travel and the operation of air conditioned buses, Madras-Bangalore (1), Nagercoil-Bangalore (2), Madras-Coimbatore (2) and Madras-Pondicherry (1) routes. Also in view of the International Children's Year, children below 5 years are to travel free. The Express services are to be run by a new body—Tiruvalluvar Transport Corporation.

Ports :

Madras Port in 1978-79 reports handling 9.7 million tonnes of cargo—a 20 per cent increase over 1977-78. In March it cleared 1 million tonnes and during the year handled 5.5 lakh tonnes of fertilisers, 2.2 lakh tonnes of cement and 2.9 million tonnes of crude. It organised itself to deal with bunching of vessels and port congestion so that no vessels except 4 cement carrying ships were awaiting clearance. By 1981-82 a grab unloader to handle 35 tonnes of cargo is to be installed at Jawahar Dock VI and at Bharathi docks 25 acres have been set aside for stocking and storing containers. The Madras Port also reports that the fisheries harbour which will accommodate 150 trawlers and 500 pablo boats will be ready by September. Also the Union government has approved the setting up of a 120 metre dry dock at a cost of Rs. 6.31 crores. In April, the Tuticorin Port Trust which merges the major and minor ports was inaugurated. An artificial deep sea harbour has been built for alongside berths for salt, coal, cement and general cargo which can accommodate vessels with 9.14 metre draught and later 10.70 metres. Thus Tuticorin became the tenth major port in the country and the largest intermediate port in the country.

Land reform and other legislation :

In April the legislature adopted the Tamil Nadu Land Refoms (Fixation of Ceil-

ing on Land) Amendment Bill to plug the loopholes in the law resulting in the taking over of 1 lakh acres, regulation of the compensation to be paid, banning the resale of the land by the beneficiary, and the speeding of the land tribunal processes. The legislature also passed the Tamil Nadu Debt Relief Act replacing the previous Act for the liquidation and scaling down of debts—where the debtor has paid the creditor one and half times the principal, the debt is liquidated and where the repayment is less than the one and a half times, only the balance is to be paid. The relief is applicable to debtors not assessed to income tax, agricultural income tax, sales tax and property and profession tax. Another Act was also passed to clarify the intention of the 1976 Act for the liquidation of debts of agricultural labourers, rural artisans, and small farmers to pawn brokers, money lenders and other non institutional sources of credit charging high interest rate. The legislature adopted the Tamil Nadu Pawn Brokers (Amendment) Bill which extends to June 15, 1979 the period of the the ban on sale of pawned articles. The government presented to the Legislative Assembly the Joint Select Committee report on the Tamil Nadu Agricultural Income Tax (Amendment) Bill. Its main recommendations are : 1) to raise the exemption limit for the tax from 10 to 20 standard acres : 2) to raise the limit for the composition of the tax from 20 to 100 standard acres for plantations: 3) to modify the rates of agricultural income tax and the composition rate in line with the definition of the standard acre in respect of various crops. Under the revised schedule of income tax rates, they will vary from Rs. 8,000 income nil to the next Rs. 7,000 25 paise in the Rupee to 65 paise in the Rupee on the balance above Rs. 50,000. Similarly the composition formula varies from first 20 standard acres nil to next 5 standard acres Rs. 15 per standard acre to Rs. 100 per standard acre on next above 60 standard acres.

Markets, Park and Farmers agitation :

50 regulated markets all to be set up in the state by the end of the year and the sites for 120 regulated markets to help farmers to sell their produce are to be indentified. There are already 50 markets functioning, so that when all 220 are operating, the producers will be helped with godowns, quality testing laboratories, rest houses, banks and post offices. The Union government has under consideration the State government's scheme to establish a lion safari park at Vandalur which is the new site of the zoo. On April 23, the farmers bandh organised by Mr. Narayanaswami Naidu and his Agriculturalists Association turned violent resulting in the killing of a sub inspector and injury to 11 policemen in one village and police opening fire in five places resulting in one death and 7 injuries. This needless violence and loss of life caused by the landowners association arises from their demand for further concession on power and irrigation rates, procurement price etc. which the state governments cannot accept, besides the concessions already granted to the farming community.

National :

Budget :

When the Budget for 1979-80 was finally passed by Parliament at the end of April, the Finance Minister announced further concessions vis-a-vis his original proposals comprising : a) reduction of 15 per cent excise on household and laundry soap to 5 per cent, b) reduction of excise from 12 5 to 10 per cent on lower priced toilet soap, c) reduction of excise from 20 to 15 per cent on other varieties of soap, d) reduction of excise on detergents from 20 to 15 per cent, e) reduction

of consolidated plus additional excise on power processed white fabrics reduced from 12 to 11 per cent, f) reduction of duty on glass vials and ampules to the level of the base glass, g) restoration of income tax exemption on capital gains if they are invested in the 7.5% per annum 7 year Rural Development Bonds that the government proposes to issue, h) financial companies providing long term finance to industry and agriculture and public companies engaged in financing construction or purchase of residential houses allowed to deduct 40 per cent of taxable income if it is transferred to special reserve account and i) deduction of incomc tax from interest on all debentures issued by public companies, local authorities, statutory corporations and interest on government services payable to noncorporate resident tax payers at the rate of 10 per cent instead of 24 per cent in respect of interest on other securities. On the other hand the tax concession given to mushroom growing is to be restricted only to small scale growers, the tax exemption being limited to one third of the profits or Rs. 10,000 which ever is lower. These changes and reliefs involve a decrease in revenue of Rs. 16.29 crores and so increase the budgetary deficit to a total of Rs. 1,390 crores. In the adoption of the budget attention was concentrated by Parliament on its inflationary potential and its possible deleterious effect on the manufacturing sector. It was noted that the last group of concessions are aimed to provide some relief to the urban middle classes.

VI Plan :

A first assessment of the Fifth Plan shows a large shortfall in the attainment of its targets. Foodgrains production targetted at 140 million tonnes actually attained 127 million tonnes and so the Sixth Plan target is placed at 140.48 million tonnes in 1982-83. Finished steel which was targetted at 9.4 million tonnes achieved 7.6 million. Nitrogen targetted at 4 million tonnes achieved 2.01 million tonnes, crude oil targetted 12 million tonnes attained 10.73 million tonnes, cement 25 million tonnes and 19.30 million tonnes, oil seeds 12.5 million and 89.3 million tonnes. For 1978-79, resources estimates and some production estimates have been made by the Planning Commission. The 1978-79 resources raised for the Plan are estimated at Rs. 11,650 crores including Rs. 4,608 crores additional resources mobilised by the Union and state governments during 1974-79, compared to Rs. 9,840 crores including Rs. 3,696 crores as additional resources for 1977-78. On the investment side, it is reported that in iron and steel Rs. 530 crores was invested in 1977-78 and Rs. 568 crores in 1978-79, with a production in the integrated steel plants of 6.89 millon tonnes and 6.70 million tonnes in the 2 years, in coal and lignite the investment was Rs. 233 crores and Rs. 267 crores and production 100.9 million tonnes and 102 million tonnes in the 2 years, in power Rs. 1,925 crores and Rs. 2,217 crores were invested resulting in 1,956 MW and 2,500 MW installed capacity, in petroleum Rs. 605 crores and Rs. 507 crores were invested and 10.77 million tonnes and 12.07 million tonnes produced, in fertilisers Rs. 310 crores and Rs. 242 crores were invested and 2,015 million tonnes and 2,140 million tonnes of nitrogenous fertilisers and 670 million tonnes and 774 million tonnes of phosphatic fertilisers produced. For the year 1979-80 the Union government has asked all state governments to give a rural bias to the Annual Plan, which type of revision is inherent in the concept of the rolling plan, which on the basis of the assessment of the first year — 1978-79 performance is resulting in proposals for the additional year 1983-84 now under preparation. The rolling plan for 1979-84 will take

into account the estimated surplus of Rs. 13,582 crores in non-plan revenue account which the Seventh Finance Commission has made available to 14 states, the 8 states which are to receive grants in aid to cover their non plan deficits and the six middle income states who have to be compensated with larger plan grants. In thus finalising the VI plan and the rolling plan at a meeting of NDC in mid May, the Union government has appealed to the state governments to conserve their resources and live within their means as the Union will not be able to help them further than what the Seventh Finance Commission has done — a timely appeal in view of the deficit budgets voted by so many state legislatures for 1979-80.

Prices :

The most disturbing current factor is the 3.8 per cent rise in the index of wholesale prices between February 24 and March 31, (from 183.6 to 190.5), while the consumer's price index for industrial workers for March has risen by 5 points from 366 to 371. This rising trend continued into April and between February 21 and April 7, the wholesale price index rose by 4.8 per cent. Taking February and March wholesale prices, food articles rose by 2.2 per cent (even foodgrains by 0.5 per cent), pulses by 2.9 per cent, fruits by 12.1 per cent, kerosene oil by 8 per cent, food products by 13 per cent in which group sugar prices rose by 20 per cent, khandasari by 29 per cent, vanaspathi by 17.1 per cent, groundnut oil by 8 8 per cent, rubber and rubber products by 4.2 per cent, matches by 25.7 per cent, synthetic detergent by 12.1 per cent, scooters by 6.2 per cent, while only eggs, fish and meat showed a decline of 2.8 per cent and wheat 1.6 per cent. There has thus been a general allround rise in prices and the state by state survey of retail prices conducted by newspapers like Hindustan Times show a 5% rise in tea and 22 per cent in sugar in Chandigarh, a 15 to 20 per cent rise on soaps, toothpaste, matches, vanaspathi, mutton and cloth in Bangalore, and a 25 per cent price rise in cost of provisions in Trivandrum. In this context the controversy whether the government statement that the budget was only responsible for a rise in prices limited to 1 per cent and that apart from the price rise of kerosene and vanaspathi, the price rise is due to several factors—this official explanation and the debate surrounding it is off the mark. The danger signal is clear — there is a strong inflationary pressure. Apart from the budget and the seasonal factors, the central and state deficits which altogether now are budgetted over Rs. 2,000 crores have not yet begun to exercise their upward pressure. The increased Union budget deficit was noted earlier. Of the state budgets for 1979-80 presented to the legislature in March and April, the Himachal Pradesh budget has a deficit of Rs. 10 crores, the Madhya Pradesh budget has a deficit of Rs. 15.4 crores, Bihar budget has a deficit of Rs. 32.87 crores, the U P interim budget has a deficit of Rs. 50 crores, Jammu & Kashmir a deficit of Rs. 1.3 crores, Haryana has a budget deficit of Rs. 12.90 crores and Karnataka a whooping Rs. 76 crores deficit. During March and April, government raised prices of individual articles which together made for the inflationary rise. STC raised the price of imported oils resulting in a tin of 16.5 kg. of vanaspathi rising from Rs. 140 on January 31 to Rs. 161 on April 16; so too the prices of kerosene, HSD and petrol were increased by 8 to 25 per cent. The base price of all steel items were raised by 15 per cent and an additional surcharge of Rs. 100 per tonne of pig iron was imposed. In March, the Union employees received an additional dearness allowance totalling Rs. 132 crores for 1979-80—a higher rate from December 1, 1978 plus the cash

payments for the sixth and seventh instalments of the DA. During March money supply increased by Rs. 6,154 crores, the RBI reporting that between March 31, 1978 and February 23, 1979 net scheduled bank credit to the commercial sector rose by 17.3 per cent compared to the 7.6 per cent rise during the same period in 1977-78. So in mid March Reserve Bank of India took 3 deterrent measures to arrest this rise in credit: a) banks which on March 30, 1979 did not maintain the stipulated SLR (Statutory Liquidity Ratios) of 34 per cent of aggregate demand or time liabilities will not have refinance and rediscount facilities, b) the defaulting banks which had had recourse to rediscounting/refinance facilities must pay an additional 3 per cent interest on such sums and c) banks to rely less on resources other than their deposits such as borrowing from the call money market. As a result by April end some of the major scheduled banks reduced their sanctioned credit limits by 10-20 per cent, which may affect to some extent the investment climate. On the other hand the rural branches of the banks are expanding from 1,456 in 1976 to 2,261 in 1977 and 1,721 in 1978, their deposits from Rs. 1,116 crores in 1975 to Rs. 1,568 crores in 1976 to Rs. 2,048 crores in 1977 and advances from Rs. 607 crores in 1975 to Rs. 877 crores in 1976 and Rs. 1,139 crores in 1977. The government has asked RBI to undertake a review of rural credit arrangements to ensure further credit to rural workers—which according to the above figure is only just. On the price front, the Department of Civil Supplies and Cooperation with the help of the State governments will have to intensify its effort at demand management. This task should be facilitated if the annual report of the department that there was an impressive increase in production of most of the mass consumption manufactures in the organised industrial sector during the period April—November 1978-79—such as baby food 9.2 per cent increase; footwear 15.8 per cent, soaps 14.6 per cent, detergents 14.6 per cent, matches 13.4 per cent, pencils 19.6 per cent, is true.

Economy and Industry:

The survey of the economy in 1978-79 by NCAER and the Economic Times both indicate a certain optimism, with the latter placing the growth rate at 4.7 to 5.3 per cent. NCAER places foodgrains production at 125.6 million tonnes (2.3 per cent increase) and Economic Times at 129 million tonnes which is close to the year's target of 130 million tonnes (2.7 per cent increase). Both place pulses at around 13 million tonnes, cotton at 76.5 lakh bales, sugarcane at 182-194 lakh tonnes, jute at 77 lakh bales and oil seeds at near the target of 108 lakh tonnes. Industrial growth is estimated at 8 per cent by both surveys, with improvements in the last 3 months of the year in coal (0.9 per cent increase), cement (0.8 per cent), while steel fell by 5 7 per cent. Similarly the output of phosphates at 5.8 lakh tonnes in April - December is a rise of 15.5 per cent, commercial vehicles higher at 40,000 compared to 29,000 during the period in the previous year and increase in ingot steel by mini steel plants at 1.1 million tonnes between April and October compared to the previous year's 0.7 million tonnes. Economic Times reports that the number of industries which recorded a rise of over 8 per cent increased from 83 to 88 and those at 8 per cent from 27 to 43 between the first and third quarter. Both reviews note that prices were on the whole stable, with NCAER being much more satisfied with the post February budget rise, while the Economic Times points to the rise of 2.1 per cent between December and March. Both refer to the

large deficit in the foreign trade of Rs. 1,083 crores, attributed by both to the liberal import policy and to the decline in exports. Both note the foreign exchange reserves of near Rs. 5,000 crores and the decline in monthly remittance due to both a decrease in the number of emigrants and uncertainty in the value of the Rupee. The Economic Times estimates GNP at 1970-71 prices at Rs. 48,602 crores in 1978-79 which is a 5.2 per cent increase and the index of industrial production rise at 6.7 per cent and all agricultural crops at 3.2 per cent. The monthly index of industrial production for December 1978 stood at 160.4 which was 6.9 per cent higher than the 1977 December index. The industrial growth rate for the calendar year 1978 was 6.8 per cent and for the nine months April to December 1978-79 was 8 per cent. Increased production was registered during this period by food manufactures, machinery, mining and quarrying and metal production, with some decline in beverage industries, rubber products and leather and fur products. In April the Railway, PTT and 11 other public sector undertakings announced the offer of a 15 per cent price preference to small units in purchasing from them compared to that from medium and large units. The Union Industry Ministry announed in March that out of 246 District Industrial Centres to be set up by December 1979, 144 had been established employing 47,543 entrepreneurs employing 1.86 lakh workers in 33,495 units. The financing bodies have provided them with Rs. 41.16 crores as credit.

Public sector performance :

The 15 units under the Department of Heavy Industry produced in February 1979 Rs. 106.82 crores of goods, which was 98 per cent of their target and was 11 per cent higher than their February 1978 production. The aggregate production of all units during the 11 months, April-February, 1978-79 was Rs. 923.59 crores, an increase of 28 per cent. Engineering projects was in the lead with Rs. 98.14 crores, BHEL at Rs. 549.83 crores (25 per cent rise), HMT at Rs. 144.48 crores (64 per cent rise) and HEC at Rs. 61.03 crores which was nearly double. HAL is faced with dwindling work load and idle capacity, while MAMC and HEC which are losing heavily were given more time to pay their interest on loans and a fresh slice of finance of Rs. 14.4 crores. A statement presented to Parliament on capacity use by 70 public sector undertakings shows copper at 33 per cent of capacity use, PVC/VIR cables at 46 per cent, sewing machines at 44, structurals at 36, diesel engines at 44, road rollers at 34 and railway wagons at 42. Only 38 out of the 70 units are working at 80 per cent and above, the highest being HDPE at 141 and IDPE at 136 followed by BHC, DDT, photographic papers, nylon filament yarn, viscose filament yarn, baby food, soaps, GLS and other lamps, fluorescent tubes, razor blades, wrist watches, forged hand tools, power driven pumps and motor cycles working at 100 and above. The department's explanation for underutilisation of capacity is long gestation period, lack of demand, power cuts, raw materials scarcity, labour troubles, mechanical breakdowns and not being able to exploit the market. It is aiming at improved power supply and industrial relations to improve the performance. Parliament Committee on public undertakings reviewing this situation has recommended a more active role for government representatives on their boards, on effective monitoring by the Bureau of Public Enterprises, a system of incentives and disincentives for the managements, improved production planning, management and control and the production within 6 months for Parliament of a white paper on performance of the sector. The Economic Times

Survey shows that over half (51) of the top 100 firms in India belong to the public sector, with the biggest private sector unit, Tata Steel, being in the 13th position. The profitability of all units, whether gross profit, pre-tax profits, or gross returns on capital was lower in 1977-78 compared to the previous year. The Bureau of Public Enterprises in a study released at the end of April has proposed that 28 loss making public sector units should be wound up or handed over to the private sector. Out of the 28 units, 10 could be sold to the private sector, 3 could be wound up and the remaining 15 left hanging in the air as the private sector will not buy them. Because of these loss making public sector units, the nonplan subsidies to the public sector for 1978-79 had to be increased from Rs. 250 crores to Rs 409 crores. This is an important report and should be given early attention by the government as in addition to Rs. 12,800 crores invested in 180 public sector units, the Sixth Plan proposes a further investment of Rs. 15,000 crores.

National Production Front :

Steel :

Steel production from the integrated steel plants in 1978-79 was 6.5 million tonnes compared to 6.9 millon tonnes in 1977-78 and was 1 millon tonnes less than the years's target. The main reasons for the low production according to SAIL were the constraints on inputs, particularly coking coal, the floods which forced Coal India to reduce production and other inputs like iron ore at Bokaro and Rourkela, limestone at Durgapur, Bokaro, Rourkela, boiler coal at Rourkela, Bhilai and TISCO which came down to low level. Till February 1978, the plant lost 2,00,000 tonnes of production because of inadequate coal supply, another 2,00,000 tonnes due to inadequate power supply and 1,40,000 tonnes due to labour problems and 50,000 due to floods. However 1978-79 steel supply is around 8 million tonnes due to good performance of mini steel plants which produced 2 million tonnes and the import of one million tonnes of steel. Steel availability for 1979-80 will be 20 per cent higher, with the integrated steel plants producing 15% more at 7.405 million tonnes and to keep up this rate SAIL approved 15 capital schemes for Rs. 400 crores, including captive power plants at Bokaro and Durgapur (Rs. 125 crores), universal beam mill (Rs 65 crores), balancing facilities (Rs. 5 crores), skelp mill modification (Rs. 5.5 crores) and experimental bottom blower converter (Rs.15 crores) at Durgapur. Also one million tonnes of high grade coking coal is to be imported of which 1.8 lakh tonnes had arrived by April end. The balance of the supply will come from mini steel plants at 1 million tonnes and 2 million tonnes planned to be imported. Individual plant performances show that TISCO worked at 100 per cent capacity in 1978-79 and produced 15.21 lakh tonnes of finished steel in spite of the input shortages referred to earlier. Rourkela attained 89% of its output target and produced 10.42 lakh tonnes of saleable steel. Bokaro which produced 8,32,000 tonnes of saleable steel during April-February 1978-79 maintained a steady allround increase in all departments of production. TISCO produced 4,31,000 tonnes during the 11 month period and is slowly regaining its technical health. Durgapur which produced 7,11,000 tonnes of saleable steel during the 11 months, suffered a production loss of 68,000 tonnes due to power failures and coal shortages. On future expansions, Bhilai and Bokaro are being expanded. The Salem steel plant will go stream by September 1981 and an agreement has been concluded with the Soviet Union for its help in developing the Vizag plant with

a 3 million tonne capacity. SAIL reports that its buffer stocking of imported steel is a losing proposition as the domestic prices at which they are released are much lower than the international prices at which they were purchased. The buffer stocking of the 1.5 million tonnes of imported steel should be reviewed in light of this cost factor.

Crude :

March and April were bad months for the country's crude supply situation. 1978-79 finished with an indigenous production of 12.5 million tonnes which was 1.8 million tonnes more than in 1977-78 (ONGC 9.6 million tonnes, Oil India 2.8 million tonnes and AOC 50,000 tonnes). In addition imports of 16 million tonnes during 1978 were organised. For 1978-79, it is expected that indigenous production would be 14 million tonnes (ONGC 10.4 million tonnes [plus natural gas of 1,134 million cubic metres], Oil India 3 million tonnes and AOC 60,000 tonnes). In addition 16.5 million tonnes of crude oil and 4 million tonnes of petroleum products are to be imported during the calendar year 1979. With Iran's supply being about cut off, there is a deficit of over 2 million tonnes of crude import that the government has been trying to make up. Soviet Union has offered to supply 6,00,000 tonnes of crude in exchange for wheat, making total supply from the Soviet Union 2.1 million tonnes. Negotiations are under way with Algeria to supply 1 million tonnes, which market has not been tapped till now because of the high cost of Algerian crude. Similarly negotiations with Libya indicate that it will supply crude ranging between 7.50,000 tonnes to 2.5 million tonnes. In this parlous situation, the government resorted in March to purchase of 4,00,000 tonnes of crude in the spot market where prices are $ 5-6 more per barrel. The second development was the late March meeting of OPEC at which the price of oil was raised by 9 per cent to $ 14.542 a barrel from April 1. This means that India's foreign exchange outgo on crude will be an additional Rs. 500 crores during the financial year and not the Rs. 350 crores provided by the Ministry. The crude price rise will bring in an additional $ 23 bilion to the OPEC countries as reward. In this situation there is need once more to increase indigenous production and economise on the use of crude and its products. Bombay High production should for the year be 7-8 million tonnes. ONGC has an outlay of Rs. 340 crores from government comprising Rs. 130 crores for land operations and Rs. 204 crores for offshore operations on which it will also deploy Rs. 233 crores of its internal resources It has given a contract for Rs. 36 crores ($ 41 millions) to the US oceanic contractors for the construction of a major platform ' Bombay High North ' to pump larger quantities of oil from the 8 new wells in Bombay High from May 1980. Among economy in the use of crude and its products, it is necessary to intensify the switch over in factories from furnace oil to coal, ration the use of petrol though its use by motor cars is only 5 per cent (in this connection, from May 1, 3 state governments, Andhra Pradesh, Orissa and Madhya Pradesh, have cut government use of petrol by 15 per cent) and regulate the distribution of kerosene on which effective steps should be taken in line with the decisions outlined earlier.

Coal :

Coal output for the 11 months, April to February 1978-79 amounted to 90.76 million tonnes (compared to 90.64 million tonnes in the 11 months of 1977-78), which is good considering the interruptions caused by the Singareni strike and the September floods. On February 28,

the pithead coal stocks were 12.9 million tonnes. For 1978-80 an output of 117.89 million tonnes is planned and with Rs. 278 crores as the investment for the year, the projects awaiting approval will produce an additional 26.57 million tonnes. 20 further projects are also awaiting sanction and would produce 17.26 million tonnes annually additionally. CCL reports that it is exceeding its target of 23 million tonnes and has produced 23.4 million tonnes in 1978-79. ECL on the other hand produced less than in 1977-78 at 22.06 million tonnes compared to 24.23 million tonnes in the previous year. On the user side, the government reports that all consuming units except power and fertiliser received lower coal stocks from April-February 1978-79 than the previous year and the hardest hit were the small scale industries and brick kilns which received 1.34 million tonnes and 1.64 million tonnes. The constraints in the industry were besides floods, inadequate power supply, strike in the explosive factory and absenteeism, to which acute diesel shortage and law and order problems in Bihar should be added. The Railway Ministry claimed that the coal requirements of steel, thermal, cement, textile and fertiliser plants were fully met through its divisional and zonal monitoring units which increased the daily broad gauge loading to 24,860 wagons in February. As noted eariler the steel plants also have had imported coking coal, whereby Bhilai and Rourkela increased their daily use to 1,000 tonnes in February and 1,200 tonnes in March. For the year, the ministry forecasts a production of 101 million tonnes against the target of 106 million tonnes.

Ore and other metals :

Iron ore production was maintained in 1978-79 as were the exports, though price negotiated with Japan is low at the 1977 level and the payment in the falling dollar adds to the erosion of its export earnings. Aluminium production in 1978-79 was 2.15 lakh tonnes and in 1979-80 is expected to be 2.5 lakh tonnes. Import of aluminium in 1978-79 increased to 90,000 tonnes from 36,000 tonnes in the preceding year and a decision on the imports for 1979-80 and the agency — BALCO or MMTC — to be responsible for imports is expected in May. Copper production was 20,000 tonnes in 1978-79 and is expected to be 25,000 tonnes in 1979-80. Imports for 1979-80 will be at the same level as that of the previous year at 90,000 tonnes. There is need for some check by government that the registered copper users are using their quota for production purposes both to counter the spurt in demand from 6,500 tonnes in September to 13,000 tonnes in December and to ensure that the small users get their share of the metal. MMTC announced in April that price of EC copper wire bars between April and June will be Rs. 34,000 per tonne for all users — a 30 per cent increase. The Planning Commission estimates that the imports of aluminium, copper, zinc and lead (and other non ferrous metals) will continue to be high at the end of the Plan period in 1982-83. In 1982-83 aluminium production will be 2,90,000 tonnes and demand 3,65,000 tonnes, leaving 75,000 tonnes to be imported. Zinc demand will be 1,25,000 tonnes, production 85,500 tonnes leaving 39,500 tonnes to be imported. Lead production will be 16,000 tonnes, demand 50,800 tonnes leaving 34,800 tonnes to be imported.

Sugar and Paper :

To counter the rise in sugar price consequent on the restricted monthly releases, ISMA released an additional half a lakh tonne to make a total of 5.65 lakh tonnes for the month of April. In April 1977

when there was a statutory control, the government release was 3.8 lakh tonnes. The large consumption increase at present is the consequence of decontrol and the fall in price. Now the industry has pushed up the price and is blaming the Railways and transport operators for the restricted supply and rise in price. MRTP commission which is enquiring into the action by the sugar factories should be able to correct the situation. The union has received loan requests from Tamil Nadu (Rs. 10 crores), Andhra Pradesh (Rs. 5 crores) and Gujarat (Rs. 1.5 crores) to assist the sugar industry clear its cane arrears — following the loan of Rs. 20 crores for the purpose given to Uttar Pradesh. Cane arrears in 1978-79 reached Rs. 95.48 crores which was 34.8 per cent of the total price payable plus Rs. 26.24 crores due for cane purchased in 1977-78. In arrears UP is at the top with Rs. 30.92 crores followed by Maharashtra (Rs. 23.17 crores), Tamil Nadu (Rs. 6.89 crores), Andhra Pradesh (Rs 5.21 crores) and Karnataka (Rs. 9.48 crores). In addition to the law authorising the takeover of defaulting mills under which 10 have been taken over Reserve Bank of India has asked the banks to monitor the payment of dues to the cane growers and use the credit limit, working captial, valuation of stocks etc. as sanctions for this purpose. On the paper front, where shortages have developed, the industry reports the production of paper and paper boards at 9.2 lakh tonnes in 1977-78, of printing and writing paper at 5.5 lakh tonnes and feels that with increase in its installed capacity to 18.1 lakh tonnes it can meet the demand for paper and paper boards at 12 62 lakh tonnes in 1982-83. There is the usual complaint about the price being set too low for the priority sector — education and government — the cost of a tonne of white printing paper is Rs. 3,700 while the price for the priority sector is Rs. 2,750 per tonne. The industry alleges that part of the paper allowed to the eduction sector is finding its way to the black market where it sells at Rs. 4,500 a tonne. These are the normal complaints but they should be examined and corrective action, if needed, taken.

Transport and Cotton :

NCAER in its survey of the transport industry finds that the tax on the industry has retarded growth. Taxes on diesel, tyres and tubes which comprise 43 per cent of the recurring cost are 60 per cent of the total tax. Over a 5 year period which is the life of a truck the total tax paid is Rs. 2,39,530 leading to over-loading, official corruption and bribing. Small transport operators who are 99.4 per cent of all truck owners load 11-12 tonnes against optimum 10 tonnes as the only means of survival. Expenditure on the collection of each rupee of Octroi is 83 paise, and the loss to the country in the net collection of Rs. 40 crores being enormous. 20.35 per cent of time is wasted at the Octori and other check posts which means that a carrying capacity of 80,000 trucks out of a total fleet of 3,50,000 and Rs 650 crores out of a total of Rs. 2,975 crores are locked up. There is also the fuel wastage due to the idling of trucks at the check points. There is thus an urgent need for nationalising the taxation structure on the transport industry. On the cotton front, the Cotton Advisory Board estimates at its meeting in April that cotton production in 1978-79 will be a high 75-76 lakh bales (against its previous forecast of 73 lakh bales), comprising Punjab, Haryana and Rajasthan 22.50 lakh bales, Madhya Pradesh 5 lakh bales, Maharashtra 15 lakh bales, Gujarat 19.5 lakh bales, Karnataka 6.5 lakh bales, Andhra Pradesh 4 lakh bales and Tamil Nadu 3 lakh bales. It is reported that as a consequence while cotton prices are low, Suvin cotton prices are

Rs. 14,000/= a candy against the normal Rs. 9,000, largely because the import of long staple cotton has been stopped and mills have thus to use Suvin.

Agricultural Production :

Despite a loss of about 3 million tonnes of foodgrains in North Indian floods, the 1978-79 foodgrain crop is expected to exceed the 1977-78 level of 125.6 million tonnes. About 10.3 million tonnes of foodgrains were procured in 1977-78 and public distribution was 11.7 million tonnes in 1977 and 10 million tonnes in 1978. The buffer and operational foodgrain stock at the end of 1978 was 17.4 million tonnes. The 5 northern states — Punjab, Haryana, UP, Rajasthan and MP are gathering record rabi harvests — Punjab with 70 lakh tonnes and Haryana 30 lakh tonnes. In UP oil seeds production will be 16 lakh tonnes against the previous year's 12 lakh tonnes and in Rajasthan mustard seed and rape seed production is 150 per cent higher than the previous year. The outlook for commercial crops is equally good. Cotton production was referred to earlier. jute production is estimated at 64.5 lakh bales (20.4 per cent increase). The decline in rice output in West Bengal and MP is more than made up by increased production of AP, UP, Orissa, Punjab, Haryana and Tamil Nadu. Jawar and maize affected by excessive rains might be at a lower production level. Several factors have contributed to this good crop year: fertiliser consumption was 43 lakh tonnes (26.5 per cent rise), HYV area increased from 33.6 million hectares to 38 million hectares, extension services were effective and credit flows upto June 1978 amounted to Rs. 2,360 crores. In this connection the government reports that out of 23.54 million hectares of irrigated land, 22.15 million hectares are in use at March 1978. The extension of irrigation and the modernisation of the canal system have an important impact on the agricultural production system. Have we left behind the period of shortages in foodgrains and agricultural production and should we now plan for a period of surpluses? In the field of land reforms, the government report that about 46 million hectares have been consolidated, under the land ceiling laws. 6.48 lakh hectares of surplus land have so far been distributed among 10.55 lakh farming families, 50 per cent of whom are SC and ST. The extension of storage facilities involved the construction of over 4 million tonnes of new capacity in addition to the 11 lakh tonne storage capacity completed in 1978-79 and another 11 lakh tonnes to be completed in 1979-80. The government also announced that it has under consideration a proposal to pay farmers storage charges so that they may keep foodgrains on behalf of FCI. In this connection a working group of the Department of Rural Development has recommended the construction of 2,000 rural storage centres, each with a capacity of 200 tonnes and in order to make it attractive to the Panchayat Unions, the Union government should pay 35 per cent of the construction cost and the state government 15 per cent. A further 20 per cent of the cost could be paid as part of the food for work programme. For 1979-80, 4 lakh tonnes storage may be constructed as a start and by the end of the Plan period some 2-3 million tonnes storage will have been constructed — to store foodgrains, seeds, fertilisers and pesticides. By mid-March, rice procurement had crossed 5 million tonnes by official agencies, with Punjab procuring 2.5 million tonnes, Haryana 7,70,000, UP 6,30 000 and Andhra Pradesh 4,80,000. This increased rice stock led to the Soviet arrangement of crude for rice and of increased rice supplies under the food for work programme. The National Seeds Corporation reports an increase of its programme of selling cer-

tified seeds of foodgrains, pulses,oil seeds, jute and vegetables to cover the certified seeds of paddy over 4 lakh hectares, hybrid bajra over 6 lakh hectares, hybrid sorghum over 3 lakh hectares, hybrid maize over 3.3 lakh hectares and wheat over 4.2 million hectares. The government also reports that the procurement of rabi wheat started at April end in the various mandis in Sonepat. Punjab, whose kharif cereals was 38.55 lakh tonnes (17.14 per cent rise), has a rabi cereal crop of 69.50 lakh tonnes (3.52 per cent increase) and similar increases in cotton, sugarcane, oil seeds and potatoes. Haryana has set for 1979-80 a foodgrain target of 60 lakh tonnes. With good and record production of jute the modalities of building a jute buffer is under discussion by IJMA and the government —on the question of financing the buffer at a concessional rate of 8-10 per cent instead of the usual 14-15 per cent. The government also announced in April in Parliament a pilot crop insurance scheme with the state governments as co-insurers, for homogeneous agro-climatic blocks with common premia rates and indemnity. The state governments would share claims as well as premia to the extent of 25 per cent. Four committees of the Planning Commission are examining Dastur's Garland Canal Scheme, starting with a study of the possibility of diverting waters of the west flowing rivers in Karnataka, Kerala and Maharashtra to scarcity areas in the eastern region and the transfer of waters of the major tributaries of Jamuna to the water short areas in Gujarat, M.P. Rajasthan and U. P.

Export :

Exports during the 11 months April to February 1978-79 showed an increase of 3.1 per cent at Rs. 4,938.28 crores compared to the first 11 months of 1977-78, primarily because of the pick up of exports since December with February registering a 13.2 per cent increase. Imports during this period are placed at Rs. 6,001.05 crores compared to Rs. 4,703 crores in 1977-78, which is an increase of 27.5 per cent. For the first 11 months the trade deficit is Rs. 1,063 crores againsr the previous year's surplus of Rs 86 crores. Now that exports are picking up this trade imbalance must be attributed to slowing down of exports in the first 8 months of the year and to a large extent to the import liberalisation policy under which raw materials and captial goods were imported to increase production both domestically and for exports. Also the labour unrest in the ports deprived the country of Rs. 400-500 crores of export earnings. In addition exports of important labour intensive sectors such as apparels and engineering goods were affected by quota and other restraints. At the end of April, US announced that 23 Indian export items, mostly in the handloom and cottage sector, skin, leather, molasses, jute yarn, handloom fabrics etc, are withdrawn from the US GSP scheme in accordance with the Competitive Needs Criteria (CNC). Non traditionals such as gems and jewellery, engineering goods, cotton garments, leather and leather goods, marine products and handicrafts have increased in export from 8 to 43 per cent. Exports to Europe have declined — by 2.2 per cent to Western Europe, to 0 8 per cent to EEC and by 30 per cent to Eastern Europe. Exports to North America increased by 2.6 per cent and to ESCAP countries by 12.1 per cent, with a rather small increase from Rs. 278 crores to Rs. 282 crores to West Asia. Government has taken a number of long term measures to expand the production base of the economy in agriculture and manufactures and paid Rs. 120 crores as cash compensatory support to exporters of engineering goods in the period April-February 1978-79. It has under examination the recom-

mendation of a task force of the ministry of commerce concerning the setting up of an overseas project promotions board, more concessionary facilities for tea exports, grant of deferred payment terms for jute manufacturers and cashew, an insurance cover by the Export Credit and Guarantee Corporation and an Export-Import Bank to finance India's foreign trade. Export of carpets are doing well and the target of Rs. 200 crores has probably been attained. The recommendations of the task forces on export of leather and leather products, gems and jewellery, and electronics are being examined by the government with a view to taking early action. Particular promotional emphasis is being laid on value added items, while the exports of traditionals, copper, tea, rubber, cardamom, fruits and vegetables, oil seeds are also being pushed. In March, the government announced the allocation of the textile export quota for Sweden from March 1 to June 30 on a first come first served basis for ready goods. In March also India and Yugoslavia agreed to expand their trade in fertilisers, non ferrous metals, newsprint, drugs and pharmaceuticals and steel and electronic items and in collaboration in third country projects. In the export policy announced for 1979-80, 9 new items have been canalised, seasame and niger seed, potato seed, molasses, barytes, cinema films and footwear etc., 12 items have been decanalised including potato, sugar, iron ore, pig iron, alloy steel. In order to increase exports from the small scale sector it has been recommended that STC play back a portion of its projects for development of infrastructural facilities to provide small units with raw materials of uniform quality, technical guidance and quality control and so ensure that their exports meet the export market quality demands. In fact the government is planning to enact legislation to impose imprisonment and heavy fines on exporters supplying substandard goods. The government has also decided that the rates of cash assistance to exports should be fixed in multiples of 2.5 and vary from 5 to 25 per cent. A recent study reports that cash assistance to exports during the last 4 years has increased by 370 per cent, from Rs. 66.8 crores in 1974-75 to Rs. 400 crores in 1978-79. This is one of the reasons for the high cost structure, growing budgetary deficits and some questionable trade offs. This is an area which needs review.

Aid :

In March, India and Japan agreed on a yen grant of Rs. 12.5 crores to India which reduces the interest paid by India in 1978-79 on all Japanese loans since 1958 to 3 per cent and this will be given as a grant to India in a lump sum by March 31. Also UK and India signed an agreement providing grants of £ 20.90 million (Rs. 33.75 crores) to finance the rupee costs of agreed development projects. This is the first instalment of grant funds totalling Rs. 949 crores to be given to India by the end of the century to relieve it of its debt burden on past loans. India and Canada agreed on a Canadian loan of $ 15 million (Rs.13.9 crores) as support to agreed production programmes. One problem which the Finance Ministry faces is the very slow (about 50 per cent) rate of use of aid funds by the states. Some part of this is due to the fact that it is much more difficult to use foreign aid in rural development projects than in industrial projects. So the ministry has suggested that State government set up special committees to coordinate the use of funds and cells to monitor their use.

International :

Bangladesh :

In April as a result of discussions between the President of Bangladesh and the Prime Minister, agreement was reached on : a) to secure optimum utilisation of the Ganga and other river waters available to both countries, the Joint Rivers Commission will set up local machinery to resolve local problems such as construction of spurs on rivers, sharing of the Teesta river water and study the problems of the Ganga-Brahmaputra-Barak river basin ; b) India will supply Bangladesh 2,00,000 tonnes of foodgrains to be returned in kind ; c) the trade between the two countries would be reviewed to attain a more balanced trade ; and d) an agreement to avoid double taxation is to be expeditiously negotiated. Following the overall agreements, the Indo-Bangladesh Joint Rivers Commission met at Dacca for 6 days at the end of April and agreed : 1) to modify 'groynes' constructed on the Indian side of the river Kushiyara, 2) to draw up plans for protective work on the rivers so that the interest of both sides would be protected.

World Monetary Reform :

The new European Monetary System [EMS] designed to stabilise currency fluctuations within the ECM went into operation on March 12. The IMF Interim Committee at a meeting in early March decided to defer consideration of the proposals of the group of 24 [developing countries] to create a medium term lending facility to support developing countries facing balance of payments difficulties and a second proposal for creating a facility which will assist poor countries in importing capital goods for development. The two proposals are to be considered by the Chairman of the Joint IMF-World Bank Committee in relation to existing lending facilities and taken up by the Interim Committee on the basis of that report. The Committee gave SDRs a wider role in international monetary fund transactions and renewed its appeal to rich countries to reverse the protectionist trend and give market access to the exports of the developing countries. The Committee also welcomed the decisions of the Fund's Executive Committee under which SDRs could be used for making loans and settling obligations directly and the proposal for the setting up of an account that would accept deposits of foreign exchange from members on a voluntary basis in exchange for an equivalent amount of SDRs, as a further step to make SDRs the principal reserve asset in the international monetary system. The proposal will be considered in all its details at the next meeting of the Committee in October when it meets in Belgrade for the Annual Meeting of the Fund and the Bank. India welcomed the proposal as it will provide it and other countries the possibility of diversifying their portfolio holdings.

UNCTAD :

At a 101 nations UNCTAD meeting in March in Geneva, industrialised and developing countries finally agreed on the basic elements of a $750 million International Fund to stabilise commodity prices. It will serve as a central pool of finance for price stabilisation measures by the international commodity organisation associated with the Fund. While there was general agreement on the capital structure and financial resources, the US and USSR did not agree to the voting pattern which the US said gave the developing countries the strongest voice — with 47 per cent of the total votes, against 42 per cent to non-communist industrial countries, 8 per cent to communist Europe and 3 per cent to China. An interim committee is to draft articles of agreement for setting up the

Fund. It was also agreed that the negotiating conference should reconvene before the end of the year to adopt formally the Fund's articles of agreement. Though this is far from the 3 billion dollar fund which is needed, it is a start and clears the way for UNCTAD V to meet from May 7 to June 1 in Manila. The agenda of the conference will focus on structural changes in the International Economic Order covering trade, money, finance, and technology. On trade, the focus will be import restrictions by industrialised countries which affect 3-5 per cent of international trade valued at $30 to 50 billion. On commodities, the fact that against the Nairobi target of 12 commodity agreement, only five — coffee cocoa, olive oil, sugar and tin have been concluded and this Commodity Fund referred to above will be the focus On manufactures, the UNCTAD decision that developing countries should have a 30 per cent share of world trade in manufactures and semi-manufactures by 2000 AD against the present 8 per cent, the fact that 24 preference granting nations grant GSP to only some exports, and the results of GATT negotiations will be the main point. On money and finance, the 0.7 per cent GNP target for ODA against the current 0.34 per cent, the $ 300 billion debt burden and the resumption of the movement to world money reform and removal of barriers to shipping will be debated.

GATT Tokyo Round :

Negotiations from over 20 leading trading countries including US, EEC and one developing country, Argentina, signed an agreement resulting from five and a half years of long and complex bargaining under the Tokyo record of GATT establishing new rules to make world trade more free and less prone to protectionist trends. The tariff reductions agreed upon will reduce tariff by one-third on $140 billion of goods in international trade. The agreed reductions in import duties on goods from developing countries amount to 35 per cent. The tariff reductions are to be spread over 8 years. It was also agreed to eliminate barriers to trade in civil air craft and five fair trading codes and 3 pacts covering farm products were also agreed. The developing countries did not sign the agreement because it showed that there was no political will to meet the proposals of the developing countries to expand their trade, their proposals had been ignored and instead safeguard rules allowing industrial countries to restrict cheap import which would harm home industries were adopted as a counter-balance to the tariff concessions. Also there might be a reduction in GSP benefits following the reduced standard rates of duty. Hence the developing countries intend to continue their negotiations at Manila and other forums to get some agreement to meet their demands.

Commonwealth Industry :

A Commonwealth Industrial Conference in March in Bangalore recommended the transfer of technology from industrialised countries at low cost and redeployment of industries which would speed the industrialisation of developing countries. The Conference recommended study of a proposal for a venture capital company and the establishment of an industrial development unit in the secretariat. The Conference set up a working group to examine alternative arrangements for a minimum equity capital for industrial enterprises in developing countries. During the conference India concluded bilateral agreement for technical assistance for industrialisation with Nauru, Tanzania, Figi, Bangladesh, Cyprus, Nigeria and Solomon Islands.

World Food and Poverty :

The International Wheat Council decided to extend the world wheat agreement for 2 more years from June 30, 1979 in order to negotiate on : a) the size of the world wheat reserve stock and b) the price range which would indicate when the stock should be sold or bought to defend a minimum wheat price. When agreement on these 2 issues are reached, a new wheat pact will be concluded. In the meanwhile FAO has proposed a five point Plan aimed at nationally held but internationally operated food stocks to ensure world food security. It points out that 50 per cent of people of the world lives in rural areas in the developing countries, most of whom are poor and 800 million destitute with their conditions worsening. In the poorest countries agricultural growth fell from 2.5 per cent in the sixties to below 1 per cent in the seventies, so they had to import foodgrains. The third world's food deficit which stood at 16 million tonnes in 1970 will rise to 70 million tonnes is 1982, states FAO in the document which will be considered at the World Conference on Agrarian Reform and Rural Development to be held in Rome from July 12 to 20. The Plan envisages every country to build grain reserves for food security purposes, food donor countries should increase their food aid commitments from the present 4.7 million tonnes a year to 10 million tonnes to be further increased to 13 million tonnes by 1982 and 16 million tonnes in 1985. With a world food shortage facing the developing countries in the 1980's, the UN has appealed to them to attain the target agricultural growth rate of 4 per cent by 1980 and the developed countries should help them with $ 8.3 billions — $ 6.3 billions on concessional terms—as decided at Manila. FAO projected rice production to increase from 375 million tonnes in 1978 to 435 million tonnes by 1985 which is a 2.5 per cent growth rate, with world rice prices remaining low. The International Wheat Council estimates that world wheat in 1978 was a record 440 million tonnes and the reserve stocks would increase from last year level of 80 million tonnes by 4 million tonnes.

UN Law of Sea :

The Afro-Asian Legal Consultation Committee at its meeting in March in Seoul worked out a proposal for joint venture agreements for mining operations in the sites reserved for the International Sea Bed Authority (ISBA) which might break the deadlock in the UN Law of the Sea Conference which began its eighth session at the end of March in Geneva. Under this proposal anyone can prospect the sea bed to locate viable areas of mineral deposits and a state or a corporation or company sponsored by it could then enter into a contract with ISBA which would grant the right of exploitation to one half of the area, retaining the other half for its operation. Thus ISBA will have both the finances and acquire the technology for its operation. It is to be hoped that the UN conference can now agree upon the instrument.

World Oil Reserves :

The finite nature of world oil reserves was brought in a U.S. report that the 1,77,600 million barrels (not 2,48,000 million) would be exhausted in 15-20 years if daily production continued at 12 million barrels a day and 10 years of production went up to 14-16 million. The demand in the West is mounting and could rise to 19-23 million barrels a day and this represents real calamity for the rest of the world.

Asian Economy :

ADB's annual report for 1978 states that the developing Asian countries maintained

economic progress in 1978 despite adverse external conditions of inflation, unstable exchange rates and slow growth in world trade and income. But their trade deficit increased and the net inflow of financial resources declined from $11.5 billion in 1976 to $7.6 billion in 1977. Of the selected developing countries of the region with a total outstanding external debt of $ 56 billion in 1977, India accounted for $ 15 billion; Indonesia $ 11 billion and Pakistan with $ 6 8 billion, Bangladesh increased its foodgrain production by 10 per cent as did also Burma, Nepal, Sri Lanka and Pakistan. The combined output of wheat, rice and maize in 1978 in those countries was 255 million tonnes. In the coming Third Development Decade the thrust of these countries should be higher agricultural production and industrialisation.

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II Agricultural Development

Paddy and other Production :

The government announced that paddy production in Thanjavur district in 1978-79 was 15,36,279 tonnes which is 3.13 lakh tonnes more than the 1977-78 production. The 1977-78 Kuruvai paddy was 5,36,730 tonnes raised over 3,91,780 acres while in 1978-79 it was 6,13,410 tonnes grown over 3,64,691 acres. Samba paddy in 1977-78 was 6,86,454 tonnes grown over 7,51,867 acres, and in 1978-79 it was 9,22,869 tonnes grown over 7,70,985 acres. For 1978-79 the target of 64 lakh tonnes of rice was reached making the state a marginally surplus one. The production of millets and coarse grains came to 24 lakh tonnes. For 1979-80 a target of 88.73 lakh tonnes of foodgrains and 36.45 lakh tonnes of commercial crops has been set. And so a massive summer programme for intensive cultivation of paddy, using short duration paddy varieties and the abundant supply of water in the tanks and wells. Rice production is to be increased from 64 lakh tonnes to 65 lakh tonnes and by increased per acre production, the area will be reduced from 27 lakh hectares to 26.5 lakh hectares, releasing the 50,000 hectares for groundnut and cotton cultivation under millets, 6.25 lakh hectares are to be covered (last year 5.60 lakh hectares) to produce 20.15 lakh tonnes. The area under cumbu is being expanded as that under maize connot. Pulses will be grown over 11.60 lakh hectares (from 11 lakh hectares previously) to produce 3.58 lakh tonnes. Oil seeds production will be increased from 14.07 lakh tonnes to 16.03 lakh tonnes over an area of 14.57 lakh hectares. Fertilisers consumption which reached a record in 1977-78 will be further increased to 3 40 lakh tonnes of nitrogen, 0.9 lakh tonnes of phosphoric acid, 0 90 lakh tonnes of potash in addition to 1,000 tonnes of green manure seeds. Under the IRD, the state has 161 blocks of which 30 blocks have been selected for DPAP, 100 for SFAD for which Union grant of Rs. 4 lakhs each for the former and Rs. 5 lakhs each of the latter

will be deployed. There is need for the Union government to attend urgently to the price question in the case of rice. Further even the existing low price is not being paid to the farmer. FCI has classified Nellore rice under the Rs. 85 per quintal instead of Rs. 95 per quintal variety. This whole price issue needs to be looked at by a special expert group.

Seed certification and Horticulture :

The state has set up a Directorate of Seed Certification which will be independent of the Directorate of Agriculture in order to bring 12,000 hectares under certified seeds. In 1979-80, 12,800 hectares are to be covered with the help of the 8 central seed godowns which have been built and the 2 more coming up. Also the government is setting up a Directorate of Horticulture and one of its projects is a large orchard over an area of 419.67 hectares at an estimated cost of Rs. 52.56 lakhs in Chinnakalrayan hills where mango, citrus and sapota will be grown. Another orchard over an area of 404.08 hectares is developing in Vallatharakottai which will both replace the scrub jungle and turn the waste lands into remunerative orchards and also demonstrate through these two models improved production techniques

Research Results :

To increase the income earning capacity of farmers and also to make up for the fall in rice prices, paddy farmers are being taught to resort to alternate crop husbandry such as the cultivation of tapioca, sweet potato, Nendran banana and vegetables in terraced rice fields. Paddy growing in lowlands with water stagnation and deep water areas of which there are 30 lakh hectares in the country calls for special HYV developed by the CRRI—CR 210-1009 and CR 210-1011 which produce 4-5 tonnes per hectare. For low areas also facing drought the Institute has brought out ultra short duration variety—CRH 13-3241 which matures in 70 days and yields 2.5 to 3 tonnes per hectare. Research at Hyderabad shows that red gram which is photo period and temperature sensitive can be grown either in the middle of October in rice fallows when rice is harvested by mid October or after the monsoon crop of maize, sorghum and bajra. The demonstrations show that the red gram yield is 1,800 kg. per hectare in black soils and 2,000 kg. per hectare in rice fallows. Madurai Agricultural College has demonstrated a one plant per leaf technique in the propagation and multiplication of plants from grass to margo trees. Jasmines take 15 days for rooting, roses 13-27 days, mangoes 27 days and so on. Research in Kerala on coconut gardens has demonstrated the principle of organic recycling by growing crop plants together with livestock farming and pisciculture which means that the crop combination could be coconut and black pepper and cocoa and pineapple or coconut and high yielding fodder and spice crops and fruits. In this type of farming, there is little loss of nutrients from the field, the yield of coconut is increased and employment goes up to 1,000-1,250 man days per hectare. The Madras nursery has developed an amaranthus variety which is robust in growth and is all flowers with no leaves. They can be grown in the state and this is what is demonstrated. CFTRI, Mysore has demonstrated a plan under which 16,000 tonnes out of 50 lakh tonnes of lime fruits in the country is to be processed for meeting the country's requirement of lime oil. The Madurai Agricultural College has also developed a new variety of brinjal variety MDU-1 with good yields during February-June, June-November and November-April months. With a mean yield of 33.7 tonnes per hectare

and adaptability for growing throughout the year, it is a contribution to the State's vegetable gardening. The Tamil Nadu Agricultural University has demonstrated that in place of jaggery solution for rhizobia used in innoculation of pulse seeds, home made rice gruel can be used. The result is an increased modulation of 20.7 per cent for cow peas and 65 per cent for green grams. Also the University has identified a fungus which kills off the cotton pest Prodenia in all its 5 caterpillar stages. Further studies to develop this into a biological control agent are under way. The Madurai branch has developed a new variety of onion—MDU 1 with an increased yield of 32.7 per cent over the existing CO 2 variety. At Coimbatore another variety CO 3 for April-May and October-November seasons has been developed. Coming to harvest in 65 days its yield is 243.5 kg. per hectare per day. The Agricultural College, Trivandrum has developed a method of vegetative propagation of papaya which obtains new plants of the same quality as the mother tree. The mother plant is cut back to 20 cms. when its fruits begin declining and the new shoots are then doctored and planted to grow into trees. The use of algae as biofertilisers is of increasing importance. Growing algae in shallow basins, the water in the basin is allowed to sun dry and the dried algae can be used in rice fields as it contributes 25-30 kg. of nitrogen per hectare per season. If 50 per cent of our paddy lands use these algae, it will save 3.8 lakh tonnes of nitrogen per season.

Sugar :

The State government decided in April to prescribe fair rent for sugarcane as 25 per cent of the normal produce. This would be a, relief to many small cane growers who are lease holders of various kinds. The Coimbatore Institute has helped with 8 month duration cane varieties CO C 671, COA 760 and CQ 7201. They give 18-19 per cent sucrose in juice of 90 per cent purity and yield 169-221 tonnes of cane per hectare. This is possible because these varieties are amenable to 3 crops in a two year cycle. The Coimbatore Institute has also helped the cane growers with early maturing varieties, CO 7717, CO 7314, CO 7704. This last variety is used by the Dharmapuri Co-operative Sugar Factory where it matures in 10 months and yields 9.6 tonnes of sugar per hectare. For 1978-79 the production of gur outstripped the target of 14.30 lakh tonnes, the actual being 19 5 lakh tonnes. There was no increase in area but only in productivity. During 1979-80 the area will be stabilised at 1.45 lakh hectares with a production target of 19.67 lakh tonnes.

Cotton :

In 1979-80, 4.40 lakh bales of cotton is to be produced over 3.50 lakh acres. Improved seeds, better application of fertiliser, improved agronomic practices and protection measures are being adopted. Under the Intensive Cotton Development Programme, the coverage will be stepped up from 1.74 lakh hectares to 1.75 lakh hectares. The scheme is to be implemented in 80,000 hectares in rain fed tracts of Tirunelveli and Ramanathapuram districts and in 95,000 hectares in irrigated tracts of Coimbatore.

Dairy Development and Animal Husbandry :

The first phase of Operation Flood is to be extended beyond June in order to use all the funds fully. The outlay for the state under Operation Flood II is expected to be about 40 crores, under which milk procurement will be raised from the present 2.50 lakh litres per day to 12 lakh litres by 1984. Milk marketing by the organised sector will be raised from 2.80 lakh litres to 12 lakh litres a day. The number of

milch animals to be covered will also be increased from 2.50 lakhs to 12 lakhs and the number of benefiting farmers will increase from 2 lakhs to 10 lakhs. The draft Master Plan for dairy development in Tamil Nadu prepared by the National Dairy Development Board proposes a Regional Federation Demonstration Centre at Erode for training personnel to implement the massive Operation Flood II programme. Under the special Animal Husbandry programme, 2,500 small and marginal farmers and agricultural labourers would be helped to produce 25,000 high quality cross bred cows. The Union will provide Rs. 237.97 lakhs for implementing a calf rearing scheme in North and South Arcot, Salem, Coimbatore and Madurai Districts for a period of 5 years. Under Hill Area Development Programme Rs. 84 lakhs are to be spent for 10,000 farmers in the Nilgiris to raise their milk production from 15,000 litres to 40,000 litres per day over 5 years. Under DPAP the Union is setting up a Rs. 1.75 crores milk powder plant at Krishnagiri and under IRD 250 frozen semen centres are to be set up in Dharmapuri district and Rs. 11.90 lakhs are to be spent in the Palani hill range for setting up a cheese-cum-butter making plant at Kodaikanal. It is the policy decision of the government on making the Tamil Nadu Dairy Development Corporation responsible for promoting Anand pattern producers societies at the village and producers union at the district level which is disturbing. The Corporation is vested with the marketing responsibilities. This means that the bureaucracy which has a vested interest will not allow the Anand pattern to develop in this state. Those who know the Anand pattern know that it and government control are mutually contradictory.

Fish Farming :

The Union government in March issued guidelines to the states for the demarcation of operational zones for fishing vessels of different categories. The traditional fishermen using catamarans and country boats who number 6.5 million living in 1,800 coastal villages have raised this question as mechanised trawlers are poaching on their grounds and denuding the water, near the shore, of fish. The estimate is that Indian waters have 4.5 million tonnes of fish of which 50 per cent lies to a depth of 50 metres, 40 per cent between 50 to 200 metres and 10 per cent beyond 200 metres. The Union has given the guidelines for the states to enact legislation to safeguard the rights of different groups of fishermen. The Union government in March gave a license to the Tamil Nadu Fisheries Development Corporation to import 200 motors from Japan which can be operated on kerosene. A prawn culture farm costing Rs. 11 lakhs is under construction in Killai near Chidambaram, another at Covelong at a cost of Rs. 5 lakhs is coming up. On every 500 Kg. of prawns cultured in one hectare in 3 months with an investment of Rs. 10,000, a profit of Rs. 20,000 is made. There are 2 lakh hectares in Tamil Nadu which can be used for culturing prawns.

Tea :

1977 has been a difficult year for the tea industry. Falling international prices, decline in market enquiries, a record 131.2 million kg. of South Indian tea crop and the import duty of Rs. 5/= plus the sales tax — these were some of its problems. This year the prospects of tea production are very good. South Indian tea at February is 3.7 million kg. more than that of February 1978, so that 1979 crop may well be 600 million kg. compared to 1978's 570 million kgs. The tea is also

better in quality as seen in the demand of the Soviets and West Asian buyers. The Union government has decided not to fix an export quota for 1979 as the supply will be more than adequate both for domestic and export demands. It is estimated that in 1978-79 tea exports will be 170-180 million Kg. compared to 220 million Kg. in 1977-78. The Union government has provided Rs. 6.02 crores in 1979-80 for tea development schemes. Of this Rs. 4.35 crores are for continuing schemes (Rs. 0.8 crore for tea plantation finance scheme, Rs. 2.8 crore for tea machinery and irrigation equipment hire purchase scheme and Rs. 0.75 crore for replantation subsidy scheme). Under the new scheme Rs. 0.37 crore is a loan scheme for small growers, Rs. 0.3 crore for development of new areas, Rs. 0.25 crore for R & D and Rs. 0.75 crore for the Tea Trading Corporation. On approved applications from small growers in this state, 2 applications were approved in 1975-76 (1.49 hectares), 468 were approved in 1976-77 (249 39 hectares) and 474 were approved in 1977-78 (276.38 hectares). The Tea Board has set up 4 nurseries in South India at Gudulur, Kunda, Vandiperiar and Coonoor to develop and improve the yield of the tea gardens belonging to small growers. In addition UPASI is opening 15 demonstration plots, 10 in Tamil Nadu and 5 in Kerala to help small growers. In the state the small growers' cooperatives are doing well and will contribute to the Union government target of bringing 4,000 hectares of new lands under tea cultivation every year so that by 2000 AD the target of 1,300 million kg. production can be attained. This involves also increase in the crop yield of existing gardens.

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III Industrial Development

Industrial Development :

The rural reconstruction programme of the state government will provide various incentives including tax exemptions and raw material supply for the setting up of new industries in rural areas. The government declared that its long term policy would be for heavy industries to be in the state sector, for the present it would follow a pragmatic policy in advancing industrialisation. A newsprint-cum-white paper plant at a cost of Rs. 132 crores is being set up in the state with Mexican collaboration and the Alkali Chemicals Plantwith Japanese collaboration is being established at Tuticorin. One hundred new industrial sheds are being set up in the belt areas of Madras for young technocrats. Mineral exploitation will become a government activity. A committee headed by the Chief Secretary is streamlining all administrative procedures to speed industrial development. Legislation to regulate industrial disputes is being formulated to provide the necessary industrial peace in the state.

Salem Steel and Neyveli :

As noted earlier the Salem Steel Plant's cold rolling mill will be in operation by

the end of the current year. The first stage of setting up of the 32,000 tonnes per annum cold rolling mill has been sanctioned and Rs. 40 crores provided in the Union government's current budget. The centre will, in light of the experience in the first stage proceed with the remaining facilities including the melting and hot rolling, taking an integrated view of the operation. The Rs. 17 crore commissioning of the oil gassification of the Neyveli Fertiliser Plant is under way and will begin operation in July. This is a delay of 3 months in its commissioning due to delay in arrival of imported equipment. When completed, the lignite released will be available to the thermal plant. In mid April, under the mines expansion scheme, a crawler mounted tripper car at a cost of Rs. 1.35 crores was commissioned. It is part of the second system of specialised mining equipment and will transfer materials from conveyors to the spreader. Work on the third system is under way and when completed will increase lignite production from 3.5 million tonnes to 6.5 million tonnes.

Hindustan Photo Films :

Hindustan Photo Films reports that against the earlier estimated demand of 150 lakh roll films of 120 size for 1978-79, it produced 103 lakh rolls up to January 31, 1979 and would be producing 17 lakh rolls more by March 31, 1979. The balance of 30 lakh rolls are being imported on which there has been some delay. After consultation with the professional associations, it was decided that : 1) the demand is for 200 lakh roles per annum, 2) HPF production in 1978-79 will be 120 lakh rolls and import will have to be 60 lakh rolls in 1977-78, and 30 lakh rolls in 1978-79. To meet the gap of 20 lakh rolls STC will be permitted to import that quantity before March 31, 1979, 3) for 1979-80 against the demand for 200 lakh rolls, HPF will produce 150 lakhs and STC will import 50 lakhs. HPF has entered into a collaboration agreement with GDR for the manufacture of still roll films indigenously in 1979-80 and full self sufficiency will be reached in roll films in 1980-81.

Black granite and Magnesium Plant :

Tamil Nadu Mineral Corporation plans to export Rs. 1.25 crores of black granite in 1979-80. In the 10 months April-January 1978-79, Rs. 22 lakhs of black granite had been exported. The state government and CECRI, Karaikudi are setting up a magnesium metal plant with a capacity of 600 tonnes to meet the annual demand of 800 tonnes It will use as raw material low grade magnesite, sea bitterns and magnesium chloride. CECRI is also setting up a corrosion control centre to help public and private sector organisations who are losing Rs. 400 crores on corrosion.

Cement, Alchohol and Coir :

As noted in the January issue (pages 34-35) the government under Tamil Nadu Cement Distribution Order has licensed 4,547 dealers all over the state including cooperatives and Civil Supplies Corporation units. With the arrival of 3 ships in early March in Madras carrying 56,700 tonnes of cement, cement is available for construction. For the city a quantity of 36,500 tonnes of imported and 15,000 tonnes of indigenous cement has been allotted for the first quarter of 1979 and this is being used to distribute it in accordance with the entitlements set forth in the order. In March the 8 distillaries in the state with a total installed capacity of 65 million litres per year found themselves with large stocks and poor offtake. Rising cost of production, heavy local taxation, little sales outside the state and price disadvantage on the export front

brought the units to halt production. The price of molasses, their raw material, has jumped from the pre - 1971 price of Rs. 6.70 per tonne to Rs. 60. The state's sales tax of 25 per cent is high as is the 8 per cent union excise, so that a tonne of molasses costs today Rs. 81 inclusive of taxes. There is need for a review of this situation and an urgent export effort to be undertaken. With the approval of the Sivaraman report the union should move quickly to complete its consultations with Kerala and Karnataka, and allow this state to operate the mechanical plant for the processing of brown coir at Nagercoil.

Textiles :

The large power cut referred earlier has caused serious difficulties for the textile mills in Coimbatore. In addition to the 40 per cent cut, some mills have no power all day. To avert a serious loss of production, the mills propose to use their captive generators but for this they need diesel. The state mills provide a third of the yarn to the handloom, powerlooms and knitting factories so that a reduction in their production will have a cascading effect. To meet their diesel needs 6,000 kilolitres of HSD and 400 kilo litres of LSD are needed by the state. One good development is the inter railway agreement between Southern, South Central and South Eastern Railways which ensures quicker mobility of coal wagons and return of empty wagons to the coal pits. This will bring Singareni and Talchar coal to the State quickly and should relieve the thermal power situation.

MRF and Handlooms :

Madras Rubber Factory announced in March that it will produce non track tyres and expand its share of the car, scooter and tractor tyre market. It has a tie up with Hindustan Petroleum for distribution of tyres and with HP taking over all the Caltex stations, there will be 3,000 outlets available for MRF products. The state government is spending Rs. 2.46 crores on handloom development in 1979-80. 70 new weavers' societies covering 16,000 weavers and 30 industrial weavers co-operatives to cover 6,600 loomless weavers are to be formed. 35 weak societies are to be reviewed by enrolling additional weavers — resulting in all in increased production of 15 million metres during the year. Also 2,500 handlooms will be modernised in the co-operative sector and 4,200 weavers in the co-operative sector will be given training in new designs, weaving new fabrics and using modern gadgets. Co-optex will open 40 new show rooms to increase the marketing of handlooms and export Rs. 3 crores in 1979-80.

Home and Rural Industries:

The Nayudamma study group on Home and Rural Industries has recommended a 5 year programme of Rs. 1,000 crores investment, with cooperative and commercial banks providing 90 per cent of the amount and the state government providing the balance to create employment for 25 lakh persons. 300 types of units ranging from making combs and buttons from animal horns to chew candy from groundnut flour and anti corrosive paint from cashew shell. Tiny industries include producing straw boards, heat insulating tiles and detergents from paddy straw, husk or ash. The report recommends new industries and removal of constraints that have hampered the growth of existing rural industries. It recommends adapting Rajasthan's Antyodhya, Maharashtra's Employment Guarantee and Haryana's Rural Employment schemes with full use of food for work programme. Plantations of fast growing species over 11,000 hect-

ares for fuel, sericulture over 20,000 hectares, 8 different industrial types based on agriculture, minerals and animal husbandry are proposed. The report also raises basic questions that need answer — Do we plan for mass production or production by the masses for the masses? It proposes special machinery to implement the recommendations. The government has accepted the report and must now act on it.

Leather :

India's leather exports during 1978-79 rose by 28 per cent at Rs. 330.40 crores compared to Rs. 257.92 crores in 1977-78. Earnings from finished leather rose by 83 per cent at Rs. 181.26 crores. Of this goat skins accounted for Rs. 103.54 crores and sheep skins Rs. 34.73 crores. The export of semi processed leather declined from Rs. 120.71 crores to Rs. 107.20 crores. Leather goods and industrial leather manufactures were Rs. 17.87 crores, being a rise of 42 per cent but did not reach the target of Rs. 20 crores. Footwear exports declined by 14 per cent. There is one serious problem that has come to light. Semi processed leather is being exported as finished leather. This can be stopped by using ISI and CLRI.

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IV Education, Science and Health

Unrest in Educational Institutions :

In March the teachers in Madras and Madurai Universities colleges went on strike, organised processions, protest fasts and went to jail in large numbers in order to ensure security of service, payment directly of salaries by government, promotion rights and improved conditions of service. After a fortnight of this agitation combined with negotiations with the government, an agreement was reached and the teachers were released from jail and went back to work. There was serious disruption of academic work and the examinations of the two universities had to be postponed to help students to make up for lost time. In addition in March students of New College clashed with slum dwellers and those of Madurai Law College clashed with the police over the agitation concerning the alleged asasult of an advocate of Madurai by a police officer in Tirupparankundram. In March there was mass copying in the examinations of the Meerut University, students being allowed to take the answer books home and write out the answers. On the firm line taken by the UGC, the Vice Chancellor cancelled the examinations and is arranging for them to be held again. In Uttar Pradesh a veritable rash of question paper leakages occurred in March and April under the guise of guess papers for the high school and intermediate examinations, Meerut again being the centre for such leakages In Lucknow and other places the sellers of these guess papers guarantee refund of the price paid, if 75 per cent of the questions did not appear in the question papers. Mass copying through

out the state is reported as a normal practice, hurting the credibility even further of the examination system In Jammu student agitation continued in March and April, resulting in the boycott and closure of all colleges which attempted to reopen in early April.

Educational Reform :

8 states and 6 Union territories are adjusting the timings and vacations of primary and middle schools in rural areas to suit the requirement of the agricultural cycle, as is done in Andhra Pradesh (see vol. IX. Page 155). In addition Himachal Pradesh, Karnataka, Nagaland, Punjab, Sikkim, Tamil Nadu, West Bengal, Mizoram, Arunachal Pradesh, Andaman and Nicobar Islands, Chandigarh, Nagar Habeli and Pondicherry are acting in a similar manner. The Tamil Nadu government reports that one of the important effects of the new 10+2 system is the higher enrolment in the first year of the higher secondary schools. Against 85,000 enrolled in PUC, 1.14 lakh students are enrolled in the first year of the + 2 schools. To ensure that the rural poor have access to higher secondary education, at least one higher secondary school is located in every panchayat union and in every municipal town. However in 1978-79, 49 panchayat unions did not have such a school because of poor strength and accommodation. The Board of Higher Secondary Education is maintaining 4 subjects under Part III, which is spread over 2 years and so will not strain the students. The study load Is however being reduced without lowering of standards. The first response to the vocational + 2 stream is good and is the highest in Tamil Nadu at 24,400 compared to 3,516 in Gujarat, 2,412 in Karnataka, 2,300 in West Bengal, 2,400 in Maharastra. Out of 912 higher secondary schools, 709 offer vocational courses. The state hopes, with Union finance to appoint District Vocational Officers to supervise these courses. Since not all higher secondary schools have laboratory facilities to teach science, a college complex scheme has been evolved whereby 4 or 5 higher secondary schools are attached to a college and use its laboratory and library facilities and some staff time. 67 colleges have joined the scheme. College staff becoming surplus after the shedding of PUC by colleges will be used in the college complex scheme. The Vice Chancellors have recommended in the interest of vertical mobility of vocational students, that those of them opting for medical or engineering courses should be admitted to the second year of the polytechnics or nursing courses on completion of which they can join the degree courses. The government has this important proposal under study.

Adult Education and TV

The legislature had before it a report on the Adult Literacy Plan for the state under which one fourth of the Rs. 50 crores needed to educate the 65 lakh adult illiterates in the state will be met by Union government through NSS, Nehru Yuwak Kendras and the voluntary agencies who are operating 1,300 centres attended by 40,000 adults. The union is also financing 2,800 Rural Functional Literacy Centres spread over 12 districts at which 30 adults per centre are undergoing 10 month literacy courses, covering 84,000 adults. (This is the older farmers functional literacy programme.) The Union government has provided Rs. 2 lakhs for running 7 writers' workshops to bring out reading and learning materials for their programme. The main question raised by the State government is the means of financing the education of three fourths of the 65 lakh adults on which it wants Union assistance outside of the Plan. If this position is maintained by the state government then this state will not be executing its share of

NAEP. The alternative is to follow the Gujarat pattern which relies exclusively on voluntary agencies and therefore on Union assistance. A Rs. 1.45 crore TV Relay Station is being set up in Kodaikanal to retransmit Madras TV programmes which will be picked by it on Postal and Telegraphic micro wave net work. Because of its altitude and being within 100-120 miles of any place in the southern and Western districts, Madurai, Tirunelveli, Tiruchirapalli, Thanjavur, Salem and Coimbatore districts will be served by the Madras TV relay service. A similar relay station from Kondapalli Hills will serve the AP districts in relaying Hyderabad TV programmes. This means that as both Madras and Hyderabad will be servicing rural areas, the programmes originating from these stations will have to meet rural needs and wishes of the rural people. There may have to be an additional channel opened for this purpose.

Technical Education :

A seminar in March organised by NCERT on the vocational stream in the +2 courses in Tamil Nadu, Karnataka, Maharashtra, Gujarat and West Bengal in which 35,000 students are enrolled emphasised the need to extend apprenticeship programme to those who complete the vocational courses, the need to tailor the courses to suit the needs of rural areas and provide for vertical mobility along lines of the Tamil Nadu Vice Chancellors' decision. Of the 421 existing and 36 proposed ITIs in the country, Tamil Nadu has 32, being the fourth largest after Uttar Pradesh (with 56), Maharashtra which has 32 permanently affiliated to the National Council for Training in Vocational Trades and 7 provisionally affiliated and Andhra Pradesh which has 21 permanently and 17 provisionally affiliated. All of Tamil Nadu's Institutes are permanently affiliated The state government announced in March that in the campus of the Institute of Printing Technology a Research Institute in Printing sponsored by 7 leading newspapers including the Hindu is being established.

Science :

Two closely related reports on the country's R & D — one by CSIR on the Fifth Plan and the other by DST on 1978-79 are important and demand close scrutiny. The CSIR assessment states that the R&D activities during the Fifth Plan period 1974-79 were related to GNP growth and foreign exchange savings but only 40 per cent of the outlay was related to the realisation of socio economic objectives. Outlay on civil research declined from 54 per cent in IV Plan to 47.5 per cent in V Plan. 48 per cent of the outlay on applied civil research was oriented to the provision of basic needs, 16 per cent aimed at self reliance and 3 per cent on employment generation. In the area of food, 56 per cent of R & D outlay aimed at increased food production and only o.o1 per cent at foodgrains storage. 34 per cent of R & D outlay was on food and food articles. R & D on food processing, preservation and packaging was oriented to elitist consumption. In clothing, of Rs 15.44 crores proposed by NCST only Rs. 3.36 crores related to common cloth. There is need, says the report, to shift R & D efforts in textile technology away from the mill sector to handloom one. In housing, applied civil research outlay spent one fourth of one per cent on housing for the poor. In health nutrition R & D was only 10 per cent of the medical research outlay and 3 per cent on drinking water. Village industries received less than one fourth of one per cent of the applied research outlay and that on small scale sector double that of village industries. The technologies developed with self reliance as the objective have not been used by industry. In relating R & D to an objective to eradicate

poverty etc. the report points out that there is no down grading of Big Science. The other report, that of the Department of Science and Technology for 1978-79, stresses the S & T base of development and the high priority given to S & T projects in rural development. Emphasis was laid on new energy sources, oceanographic science, instruments and machinery development, and strengthening of information systems on S & T. In view of the energy crisis, use of solar energy for drying agricultural produce, for water pumping and power generation received special attention, as well reducing the cost of biogas plants. The National Committee on Environmental Planning and Co-ordination's many projects, the areas of new fibres, continuous carbon, optical and opto electric instruments, the Central Electronics and the National Remote Sensing Agency were pushed forward. The multi institutional Centre of Science for Villages at Wardha, rural environmental sanitation, bullock design, use of blue green algae, use of forest resources, projects in bio medical engineering and biological sciences along with a centre for Cellular and Molecular Biology at RRL at Hyderabad were further developed. The report ends with reference to its programmes for generating low cost simple technology and the Technology Delivery System to transfer laboratory knowledge to the villages. A third report by the Institute of Applied Manpower Research on S & T manpower engaged in research states that in 1975-76 S & T manpower was 1.5 million and those employed in R & D were 60,000. The study covered 32,000 of them. The R & D establishments — BARC, CSIR, ICAR, ICMR employ 23,700 of them of whom 71 per cent do research on designing. The low proportion of auxiliary personnel (only BARC has 49 per cent) means R & D scientists are underutilised and are doing auxiliary work. There is a bias towards basic research and except for BARC expenditure on administrative and clerical staff is more than on technical services. More than 10 per cent of Ph.Ds are occupying positions which should be held by undergraduates. The salary system is pyramidical (only a few among 23,700 are above Rs. 2,500) which limits the scope of both intellectual and career development of young scientists. Hence R & D is not attractive and only a third of IIT alumni are in R & D. Women are only 6 per cent of R & D personnel. R & D in private sector is not on technology and innovation but routine testing, trouble shooting and with low equipment expenditure. The correlation between earning and level of education is poor in private sector where undergraduates and diploma holders rather those with masters degree are in the highest salary slabs. R & D expenditure in the public sector in 1974-75 was Rs. 11 crores — 0.6 per cent of total sales turnover and Rs. 20 crores in the private sector — less than 0.1 per cent. In other countries it is about 1 per cent of total output. While S & T manpower growth is 20 per cent, in R & D it is 10 per cent, showing the stagnation in employment. NAL reports setting up a turbo machinery and combustion laboratory for carrying out applied research on components of turbo machinery. The Union government has set up a review committee under the Chairmanship of Prof. Saha to review the storm warning systems and telecommunication facilities and recommend improved cyclone distress mitigation measures and advice the government on evolving a comprehensive cylone code. AIMS reports the discovery of a way by which anti-body response can be generated to a self protein or hormone. A vaccine has been developed which produces anti bodies against a pregnancy hormone. Phase I clinical trials with this vaccine have been conducted on 68

women in Delhi, Bombay, Helsinki, Upsala, Santiago and Bahia and have been successful. The problem is the variability in the amount of anti bodies produced which varies from individual to individual. This is now being researched.

Health :

The interim report of the working group on population policy set up by the Planning Commission issued in April recommends that there should be a national commitment to achieve a net production rate of one per cent by 2000 AD which calls for : a) an intensified programme of fertility control, b) the reduction of the mortality rate, and c) other specific socio economic programmes. At present with a birth rate of 33 per thousand and a death rate of 14 per thousand the population growth rate is 1.9 per cent which means an annual addition of 12 million to the population which was 634 million in March 1978. The present rate means 2 births every 3 seconds or 21 million births annually. On the assumption that the birth rate will decline to 29.5 by 1986 and to 27 by 1991 and the death rate to 11.6 by 1986 and to 10.4 by 1991 the population will rise to 697 million by 1983, 761 million by 1988 and 799 million by 1991. The age group 15-59 which was 54 per cent of the population by 1978 will be 59 per cent by 1991. Women in the reproductive age group 15-44 will increase to 22.6 per cent by 1986 so that even if fertility rates remained constant, birth rate will increase, pushing up the population growth rate. Hence the Planning Commission wants the coverage of the eligible couples to be 25 5 per cent by March 1979, whereas it was 22.2 per cent in November 1978. To make up for this slide the sterilisation target for 1979-80 has been set at 5.4 millions. The working group has stressed the importance of literacy programmes, employment of women and a general improvement in their economic, health and social status against the fact that women's unemployment is higher at 12.58 per cent according to NSS compared to the general unemployment rate of 8.35 per cent. In one third of the country's districts womens' literacy is less than 10 per cent. If the family planning programme is made a peoples' programme run by the Panchayats and voluntary agencies, the small family norm will come to be adopted. The present Net Reproduction Rate (NRR) is as pointed earlier 1.67 and to bring it to 1, the size of the family will have to be reduced from 4.2 children to 2-3 per couple In addition to reducing mortality from 14 to 9 per 1000 and infant mortality from 120 to 60 per 1000 live births and increasing life expectancy to 64, if health, nutrition and related programmes are effectively executed, the NRR can be attained. The stress on fertility control and mortality reduction stresses the qualitative aspects of the population. The birth rate has been reduced by 9 points from 1966 to 1978 and if this pace of reduction can be kept the NRR can be attained. Even so this is hard, as it requires 60 per cent of the eligible couples to be protected compared to the present 22 per cent. The financial implications of the NRR target is Rs. 3,000 crores over the next 12 years plus an additional capital investment of Rs. 3,000 crores to be incurred in the next 10 years. In the short run it has recommended realistically that by 1983 the target for protected couples be reduced from 37 to 30 per cent and the birth rate target raised from 30 to 31, or 32. It has divided the states into 3 groups based on their performance and has recommended differential progammes for each plus continuing the family planning and community health worker programme under the cental sector. The Institute for Research in Medical Statistics, New Delhi plans to collect patient records from the Delhi hospitals and prepare a morbidity

atlas — a picture of the health conditions of the people in different parts of the city in different periods of the year. This will make medical authorities plan well in advance to meet the varying health problems of the people. Such an atlas should be developed in every major city as a start. The State Government reports in early March that having achieved 60-70 per cent of the target it will, by the end of March reach 2.76 lakh operations. In connection with the International Year of the Child, the Rotary Club of Madras has launched a Total Medical Programe (TMP) to cover 1 lakh children in government and corporation schools involving a) detection of ailment through screening of the children, b) basic treatment including prescription of medicines on the spot and c) immunisation along with health education.

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V Employment

One aspect of the employment situation facing the country is that the labour force will increase to 294.8 million by 1983, which means 29.5 million additional young workers entering the labour force and which in turn means that while in the sixties the labour entry was anually 4 million, it has become 5 million in the seventies and will be 6 million in the early eighties. The sectoral distribution of the labour force will remain what it is till the middle of the eighties when rural development and small production and tertiary production catches up. Against this background, employment must ensure that against the growth of the labour force by an annual 2 per cent, labour absorption must increase by an annual 3 per cent, which will also absorb the present 8 per cent backlog of unemployment. Such an employment policy requires : a) the highest feasible growtn rate. Here we are not doing well with a modest stagnant 3 to 3.5 per cent rate. In the organised sector employment growth rate has been half the production growth rate. So when large scale industry grows at 5 per cent a year, recorded employment grows at an annual 2.5 per cent and as recorded employment is only 9 per cent of the total labour force, industrial growth of the order of 5 per cent absorbs in the organised sector only 0.225 per cent of the national labour force. If in the coming Plan large scale industry grows by 6 to 7 per cent then employment in the organised sector may grow by 3 to 3.5 per cent a year - even then absorbing only 0.3 per cent of the labour force. Hence the solution of the employment problem is in agriculture and small scale industry; b) a change in the pattern of production with stress on labour intensive production sectors; and c) a policy to regulate technical change and the pattern of demand so that it changes in favour of labour intensive employment products so that the rate of growth of employment is maintained at a satisfactory level. The other side of the employment situation is the actuals —

employment in the organised sector increased from 207.44 lakhs on March 31, 1977 to 214.37 lakhs on March 31,1978, representing a 3.3 per cent increase In the public sector it increased from 138 76 lakhs to 143.98 lakhs, registering a growth rate of 3.7 per cent. During this period, employment in the private sector increased by 2.5 per cent compared to the low 0 3 per cent in 1977-78. Vacancy cancellations due to want of applicants amounted to 46,510 (in 1977-78 vacancies cancelled were 35,550). The highest cancellations because of no qualified applicants were in production process and related workers and transport equipment operators (44.54 per cent) followed by professional, technical and related workers (20.20 per cent), sales workers and clerical (12.58 per cent) and teachers (7.88 per cent). Under the Food for Work Programme, work on major, minor and medium irrigation works, flood protection and drainage, soil and water conservation, land reclamation, afforestation and social forestry, construction of field channels, land levelling, clearing and desilting of water courses, roads, school buildings, community centres, drinking water wells, and providing and repairing village roads during 1978-79 involved issue of 11,92,950 tonnes of wheat and 1, 86,250 tonnes of rice (the leading states being Rajasthan 2.61 lakhs, Bihar 2 lakhs, Orissa 2 lakhs, West Bengal 1.5 lakhs, U.P 1.35 lakhs and M. P. 1.27 lakhs), generating 554.203 lakh mandays of employment (largest being Orissa 175 640 lakhs, West Bengal 67.650 lakhs, Bihar 77.720 lakhs, Rajasthan 53.760 lakhs) and benefiting 18.160 lakh persons (Orissa 5.855 lakhs, WestBengal 2.255 lakhs, Bihar 2.590 lakhs, Rajasthan 1.792 lakhs, Andhra Pradesh 1 646 lakhs and Gujarat 1.258 lakhs). Tamil Nadu is not in the picture because it was holding out for rice and missed the bus. A task force headed by Minister of State, Miss Abha Maiti has recommended to the Ministry of Industry that at least 25 per cent of the allocations and benefits under all programmes and projects in each sector of government activity should be earmarked for women and should be separately evaluated and monitored. A special unit in the Ministry should formulate programmes and policies for the self employment of women — especially those below the poverty line. The Ministry has accepted the recommendations and is acting on them. As a follow up of the Nayudamma Committee recommendations summarised earlier the government has decided : 1) in addition to the 8 existing DICs all districts will have a DIC by the year end, so that by March 1980 they would provide employment to 25,000 persons, 2) SIDCO will put up 3,000 tiny sector sheds and immediately 1,000 of them are to be established employing 20,000 persons, 3) the 300 schemes recommended by the committee will each be subject to a feasibility study which will be circulated to entrepreneurs, 4) all government departments, corporates and local bodies should buy their requirements only from cottage units supported by the Khadi Board or DICs, 5) lime mortar in place of cement is to be used in the foundation concrete, flooring concrete, masonry and weathering course works in single and two storeys put up by the government or with its aid in order to increase small lime kilns with considerable employment potential, 6) the benefits of the capital subsidy scheme available to backward areas are to be extended to small scale units, 7) the promotion of sericulture and matches production in the cottage sector should lead to 40,000 jobs each, 8) five tea planting and processing industrial cooperatives in Janmam lands in the Gudulur area at a cost of about Rs. 10 crores will provide employment to 5,500 hill tribes. All told these schemes would generate a total of 1.50 lakh jobs in

1979-80. The Union government released the report of the Committee on workers' participation in management in which the recommendation is that in all units employing 500 or more workers there should be a three tier system of participation — at the corporate level, plant level and shop level and for the public sector participation forum at the industry level. On equity participation, it was the general view that it should apply only to the private sector on an optional basis and that 10 per cent of all new shares in a company should first be offered to the workers. The issues here are major ones and the country as a whole will have to give attention to it — the question of ownership of corporate assets.

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VI Other Items

Director's Section :

May is usually a quiet month at the Institute except for the preparations for the Interdisciplinary Research Methodology Workshop. This year's Workshop is to to be held from June 9-12 at the FACT (Cochin Division) Guest House, Ambalamedu, Cochin, Dr. M. V. Pylee, Vice-Chancellor of the University of Cochin being the host. The theme of the Workshop is "Caste and Class in India's Rural Society" and about 30 social scientists from the South Indian Universities are expected to participate.

The quiet month of May is an appropriate time to report on a major part of the work of the Institute that quietly goes on all the time — the library. The nucleus of the MIDS library is a collection of books that Dr. Malcolm S. Adiseshiah donated to the Institute. Additions were made to this collection from 1971 to 1978. With the effective reorganisation of the Institute as a national research centre in 1978 two major changes took place. A full-time librarian was appointed in April 1978 along with a small complement of professional staff. Secondly, in 1978-79 a third of the total recurring budget of the year was devoted to books and periodicals for the library. At the moment the library has a total collection of around 7,000 volumes including bound volumes of periodicals. These are housed in the newly constructed three-tier stack rooms The books are primarily on economics, education and general social problems. There is also a good collection of census reports, other government reports and statistical data pertaining to the State, the country and the world. The library follows the Dewey Decimal Classification, 18th edition for classifying the books and Ranganathan's Classified Catalogue Code 5th edition for preparing catalogue cards.

The library also gets around 130 journals and periodicals, about 100 on subscription and the rest as gifts and on exchange basis. The journals and periodicals are mainly on economic development, social change and education The current issues are kept in display racks which have the facility to house the immediate back numbers. The bound volume of periodicals

are arranged alphabetically on the shelves in the stacks.

The setting up of the library took most of the time of the staff in 1978-79, but they have also managed to bring out regularly *an* "Additions of the Month" note and a classified listing of "Articles of the Month". Some reference service to the faculty also is given.

The library is open on all working days from 9.30 am to 1.00 pm and 2.00 pm to 5.30 pm. The library is meant primarily for the faculty and research scholars of the Institute, but researchers from other institutions may use it for reference purposes.

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Informatics :

An International Symposium on the new electronic information processes, called Informatics was held in Paris in early March, It was attended by 20 experts from 12 countries. It was decided to form an International Association of Informatics for the Third world. In India a national committee on Informatics exists and there is a question as to whether there should be a nongovernmental technical agency also created in this fast moving field. As the main producers and users of informatics are NSS, CSO, BARC, CSIR, ICAR, ISI, FIFR and some universities, there may be a case for a wider professional association. The international association with its headquarters in Paris is stimulating and coordinating the informatics efforts in the third world countries.

Rajasthan, Ajmer and Tirupathi Universities :

The University of Rajasthan organised a lecture series on the Political Economy of Development The series started in March with a lecture on the Political Economy of Education, which provoked a lively academic debate on the political parameters of any educational system. The Annual Nehru Memorial Lecture organised by the Regional College of Education, Ajmer in March concentrated this year on the contribution of education to the New International Economic Order. As this was a large student audience, the problem of the medium of communication became important. In the near future, these kinds of events will have to be conducted in the regional language. At the Sri Venkateswara University in Tirupathi, the R.L. Reddy Endowment Lectures centred around the Economics of Non Formal Education. Here too the first lecture was attended by 200 students and teachers while the second by 3,000, which demanded an oral presentation of the somewhat new and complex issues.

JNU and Osmania University :

The Jawaharlal Nehru University in New Delhi organised in March an important seminar on Gandhi's relevance today. It was appropriately inaugurated by Mr. Morarji Desai whose ringing declaration of Gandhi's relevance was followed up by 2 days of good interdisciplinary discussions. The annual convocation of Osmania University in April in Hyderabad was an impressive occasion when in an auditorium of 3,000 persons about 2,000 were given their post graduate and doctorate diplomas and medals. But the heat of the auditorium was such that rather unusually the convocation address on some of the problems facing the graduating students was delivered orally, which held the audience.

TNBCE and SRC :

In April, the Tamil Nadu Board of Continuing Education and the Southern India Chamber or Commerce and Industry organised a seminar on the role of industry and banks in NAEP. It was decided that

industries and banks would each either run a literacy project costing Rs. 50,000 through the Board or contribute Rs. 1,000 or Rs. 500 per month to it. The Executive Committee of the Board received the on-going NAEP and NFE projects, decided to continue the NFE project at Santhome and Kotturpuram and not close it down because of some temporary obstacles and took follow up action on the Board — SICCI seminar. The State Resource Centre organised an interesting discussion by Mr. Roby Kidd, General Secretary of ICAE on Adult Education in India and China. The Centre's Governing Board at its April meeting reviewed the Centre's programme and decided to emphasise a little further its materials production work.

ICCR, UGC and National Staff College :

The editorial board of the Africa Quarterly edited by the Indian Council of Cultural Relations met in April and planned its future 3 issues. It decided to bring out a special issue of Africa on India's celebration of the Anti Apartheid Year — in time for the General Assembly meeting in October. The UGC Review Committee met in late April for the 3rd time and after reviewing the work of the Visiting Committee and the specialist programmes review groups decided to meet in late May to draw its conclusions on how far UGC objectives are being attained The National Staff College organised, at the end of April, a seminar on teaching, research and extension of Educational Planning and Administration by University Departments of Education. The basic question raised was the need to continue the search for the content, methodology, techniques of educational planning.

IAEA, NAEP and Advisory Committee on Adult Education Symposium :

The Executive Committee of the Indian Adult Education Association met at the end of April, approved the programme of Adult Education centres in Delhi, inter-regional workshops and publications, the budget for 1979-80 and staff emoluments. It also welcomed the invitation of Amritsar to hold the Annual conference in that city. A meeting of the Voluntary Agencies Committee presided by Minister Renuka Devi Barkataki met in mid April and laid down guidelines for early approval of projects by the agencies. At the same time the means of dealing with the problems of mushrooming of agencies to take advantage of the available funds andthe means of associating political parties with the programme which would result in their being politicised were discussed and agreed upon. A meeting of the advisory committee of the International Symposium on the role of Adult Education in reducing inequalities and raising professional qualifications was held in the Madras University in April. The meeting approved the list of paper writers for the symposium, the finances and the programme.

MIDS Executive Committee :

The Executive Committee of the the Madras Institute of Development Studies was held in mid April. It approved the recommendations of the Building Committee for the additional Rs. 5 64 lakhs building, reviewed the programme developed by the Director and approved it and agreed to the staff proposals.

Rajya Sabha :

The Rajya Sabha which adjourned on March 22 reconvened on April 24 and took several bills including the Appropriation

and Finance Bills. There was a meeting of the Joint Select Committee on the Viswa Bharathi University Bill in mid April in New Delhi when the committee received further evidence and comments on the Bill.

April Development Seminar :

The paper "Union and State Budgets : 1979-80" by K. Bharathan and the discussion of the paper at the April Seminar under the Chairmanship of Mr. S. R. Kaiwar appears as the first article.

Second Article :

A paper, Engineers and the Economy, appears as the second article.

Special Section :

This May-June 1979 issue is the first special number of the year and has a section which is the result of the first Census of Social Science Research in South India —the Ninth Census of Social Science Research conducted by the Institute. Till now it has been an annual census of Tamil Nadu research. Now by the recommendation of the Heads of Departments of Social Sciences meeting in December 1978 (see Vol IX, Page 43) it is extended to all 4 southern states.

Union and State Budgets : 1979 - 80

By

K. BHARATHAN

Madras

An analysis, at the fag end of April, on the Union and State Budgets comes rather late. Almost anybody who has any comment to make on the issue has already made it, and virtually everything that can be said about it has already been said. Nevertheless, there is an advantage in a late analysis insofar as one has on hand the responses of different sections of society to the Budget proposals, and one has also been exposed to the bulk of discussions in Parliament and the Assembly on the issue. Finally, if the focus of attention, as in this paper, is on the overall rather than the specific, then it is positively advantageous to make an analysis this late.

We will not, in this paper, attempt to study either of the two budgets item by item, but concentrate our attention on certain key issues important to our general understanding of the impact of the budgets on the economy.

The paper is divided into two major sections, the first dealing with the Union Budget for 1979-80, the second with the budgets of the states, with particular reference to the Tamil Nadu State Budget, for the same period.

The Union Budget :

The budget is basically a statement combining an estimate of the quantum and pattern of anticipated expenditure in the forthcoming year with proposals regarding the manner of raising the resources needed for that expenditure. The pattern and quantum of both of these, expenditures and revenue, is of some significance to the economy in terms of the development directions that the economy is being moved towards by budgetary policy, in terms of which sections of society gain and which lose from Government expenditure. To make an overall assessment of these issues, it is necessary to first have some idea of the previous year's behaviour of the economy.

A Review of the Economy :

Over the last four years, the economy has been experiencing good harvests. Agricultural output has therefore been consistently good, especially in the last two years. With a bumper harvest in 1977-78, agricultural output has done well in 1978-79 with a growth in output that, *in a statistical sense*, has been marginal. A consistent policy of price support and procurement in this situation has meant a steady increase in the foodgrain stocks in the hands of Government to the current level of about 20 million tonnes.

Industrial output for the first three quarters of 1978-79 has increased by 7.5%, according to the Economic Survey, as against 4 2% for the corresponding period in 1977-78, so that the expectation for the year as a whole is about 8%. This is a considerable improvemant, given the long spell of stagnation that industry has been going through. However within this, public sector undertakings have not been doing well; the trend of better performance revealed in the previous year has not been maintained.

Gross capital formation has been lower in 1978-79 than in 1977-78. Although a part of this may be due to depletion of inventories, as the Economic Survey argues[1] it must be noted that there has been a general decline in gross capital formation ever since 1975-76, particularly within the private sector.[2] Investment in the public sector has been somewhat short of last year's budgetary allocation, going by the difference between budget and Revised Estimates. Investment in industry and minerals was Rs. 184 crores below target, within which major shortfalls occurred in potroleum, by Rs. 109 crores, in fertilisers, atomic energy, drugs and pharmaceuticals consumer good industries and ship-building by Rs. 73 crores [3] Resources generated by the public sector undertakings for investment in 1978-79 was only of the order of Rs. 481 crores.[4]

Foreign exchange reserves have built up to Rs. 5,000 crores by the end of 1978-79 The bulk of this appears to be due to inward remittances by individuals.[5] It appears from the Economic Survey, 1978-79, that there was a decline in exports over the year, with the growth rate turning negative in the first three quarters of the year, after falling sharply in 1977-78. This could be the beginning of a trend in the decline of the export growth rate. Imports, on the other hand, have definitely gone up in 1978-79 relative to the previous year, partly because of liberalisation of the import regulations, and partly also due to the import of consumer items, so that the growth rate of foreign exchange reserves has slowed down in 1978-79 relative to previous years.

Price levels, according to official opinions, is remarkably stable.[6] Taking into account only wholesale prices, this seems more or less true of the general level, but the consumer price level went up by 5% over the year, the bulk of it over the last quarter. As to whether this is an understatement is debatable. According to at least one commentator on the issue, the official consumer price index is selective its weightage on commodities, being especially high on food articles. Increases in prices on other necessities, as transport, kerosene, lighting, etc., are understated, and as a result, the price index does not reveal the truth. This may be so, but the fact of a rise in the price level, especially in the wake of a large deficit in the Union Budget last year, is worth noting.

To sum up, the general situation for the Government in the beginning of the year 1979-80 seems to be comfortable with a large foodgrain stock and mounting foreign

exchange reserves. Investment generally has been low, with a shortfall in the public sector investments, and a declining trend continuing in the private sector.

It is keeping these factors in mind that we must turn to àn examination of the budget proposals.

The Expenditure Side :

Expenditure of the Union Government can be examined under there broad heads. There is first, Government consumption expenditure, i. e., the costs of maintaining and running the Government appratus. These would include expenditure on administrative services, organs of state, fiscal services, pensions and miscellaneous services, as well as defence. The second broad type of expenditures would be the expenditure on social welfare schemes, such as education, medical and social services, water supply and sanitation schemes, housing, urban development and similar schemes. The third head would then contain all schemes directly bearing upon developmental schemes. Developmental schemes would themselves consist of two sections, expenditures where the State enters as an investor, and those where it offers subsidies for development and for production.

Government consumption expenditure does not contribute directly to development. But the bulk of such expenditure goes toward payment of salaries and wages, and as such generates a quantum of income as well as account for some employment in the economy. Consumption expenditures in India have been generally on the rise. For example, the item " Administrative Services " which stood at Rs. 409.28 crores in 1977-78, rose to Rs. 434.36 crores in 1978-79 (Revised Estimates), and is expected to rise in this year to Rs. 502 81 crores[8]. This would imply a rise of Rs. 93.53 crores in just three years. Total consumption expenditure in 1979-80 has been allocated Rs. 6,807 crores in the budget, and accounts for 34% of the total expenditure of Rs. 18,626 crores Although such expenditure may be justified as the minimum necessary to run the Government, it must nevertheless be noted that greater the share of expenditure on this head, the less available for developmental purposes.

The total plan allocation for welfare schemes in the 1979-80 budget is Rs. 1,539 crores, a mere 12.3% of total plan expeniture. In absolute as well as relative terms, there has been a decline in social welfare schemes relative to 1978-79, when the allocation, at Rs. 1,608 crores, represented 13.8% of total plan expenditure. The largest cut, among these items has been in the case of education, where there is a reduction of 33.4%.[9] The attack on education is not new, but began in the first half of the 1970s, being manifested particularly in allocations toward higher education. Although the argument has been that reduction in higher education has been with the objective of making more allocation to primary and secondary education, thereby building up a stronger base, the continuous decline in overall expenditure would seem to imply that there is not so much a transfer as there is an overall decline in the priority for education. The decline in medical and social health schemes is also singificant, from Rs. 393 crores last year to Rs. 385 crores in this year's budget.[10] These instances, typical of the whole set of welfare items, seem indicative of a dangerous trend of thinking in the Government that welfare schemes are some how subordinate to all other expenditures. This is not true. For one thing, it is known that where such welfare schemes do percolate to the lower income groups, there is some degree of compen-

sation, even if only partial, for the payment these groups make to the exchequer in the form of indirect taxes.[11] This partial amelioration for loss in real income is also lost with a cut in such schemes. Of course, this is not to argue that such welfare schemes always do reach the lower income groups, nor that where they percolate, that even the bulk of the allocation goes to them.

Development expenditure, the other item of plan outlay apart from welfare schemes, is of considerable importance insofar as in India the state is envisaged as playing a major role in economic development. The budget allocation for agriculture and allied activities is only 3.4% more than that made last year, as against an overall increase of 7.4% in total plan outlay.[12] Thus, the share of agriculture and allied activities in total plan outlay falls by0.6% However, outlay on agriculture and allied activities, irrigation, and village and small industries add up to Rs. 3,239 crores which would indicate an increase of 7.5% over the previous year in allocations towards the rural sections of the economy. On the other hand. allocations to industry and mining, transport and communication grouped together reveal an increase of 11.72%, which is well over the increase in the total outlay. But if it is thought that allocation to agriculture are less than to industry, a closer look reveals a different picture.

Plan allocation to industry appears, from the Budget Speech itself, to be concentrated in lines of production directly benefioial to agriculture. Thus, provision for power, coal, fertilisers and chemicals, minerals, petroleum, steel, and roads and railways stands at Rs. 3,122 crores in 1979-80 as against Rs. 2,733 crores in 1978-79. It may be noted in passing that the bulk of these expenditures are expected to be made by the states in their plans, while the Union Budget allocation has actually been cut from the 1978-79 level, on the argument that the public sector undertakings will themselves raise funds of Rs. 873 crores. As already seen, the surpluses of public sector enterprises stood at only Rs. 481 crores, so that it is somewhat doubtful if they can meet the target, which would mean doubling their surplus in just one year. Of course, it must also be noted that this pattern of emphasis on particular industries does not harm the industrial sector, which also uses supplies of inputs from the same industries.

Within agricIture itself, there is a differential policy in terms of priorities. The Food for Work Programme, of benefit to the class of agricultural labourers and small peasantry, which together constitute the bulk of the rural population, has been allocated Rs. 50 crores. It was granted Rs. 100 crores in 1978-79. Allocation under the Drought Prone Area Programme as well as under the programme to set up industrial units in backward areas has been reduced to nil. Moreover, the Integrated Rural Development Programme has been allocated only Rs. 258 crores in the Union Budget, which works out at around 11.2 lakh per block for the 2,300 blocks it is to cover. All of these would affect employment, and consequently the income of the bulk of the rural people. On the other hand, the Agricultural Refinance Corporation has been given an exemption from tax and also granted a sum of Rs. 159 crores so as to make available cheaper credit to the "rural population" which, in this case would consist of the rural rich. This samall class of landlords and rich farmers is to be further facilitated by the granting of a subsidy of Rs. 10 crores for a foodgrain storage scheme. It is by now well known that the bulk of the credit channelised to the

rural sector has gone towards panding the capacity of the class of rich farmers, landlords, traders and the like to corner stocks for speculative purposes. It appears that they are now not only to be facilitated in storing these stocks, but are also to hold the bulk of the reserves in the economy, for the Finance Minister has stated that the advantages of this scheme are that "grain can be stored near the place of production, thus reducing wastage, and it will reduce the costs of storage for Government because godowns can be built cheaper and *the cost of holding inventories can be borne by the farmers*".[13] Finally, an additional sum of Rs. 10 crores has been granted for extending minor irrigation subsidy, which was thus far applicable only to small and marginal farmers, to farmers holding between 2 and 4 hectares. The chief economic distinction between major and medium irrigation works on the one hand and minor works on the other is that the latter is private property. Whereas in the former the costs of investment can be recouped (at least in theory, entirely) by levies on water usage, in the latter they connot. This subsidy, therefore is nothing short of a transfer payment to rich farmers, to facilitate private accumulation on their part.

Among the subsidies, which amount to Rs. 1,742 crores or 9.4% of total expenture, food subsidy and fertiliser subsidy together total Rs. 1,008 crores. If one can assume that given the paucity of public distribution outlets for foodgrains and the ilmited scope of this programme, that the food subsidy scheme will benefit the rich farmers (who control an overwhelmingly large proportion of the marketed surplus) rather than the urban consumer, then this entire amount is to go to the agricultural sector Where fertiliser subsidy is concerned, it is apparent that it is the better-off sections of the rural population who own the bulk of the land, rather than the small farmer who will rake off the benefits. Thus, both schemes are aimed towards the welfare of this small section.

Export subsidies are another major part of the subsidies scheme of the Plan It is noteworthy that even in a phase when the exports have been falling after a period of declining growth, this expenditure continues to mount. It is difficult to make an assessment here of the quantum of subsidies for export, direct and indirect, in this year's budget. That would require a detailed examination of the detailed Demands for Grants which have not been available to us, and also a separate study. But a report in the Economic Times reveals that over the period 1974-75 to 1977-78, the cash subsidies for exports alone increased by 366%.[14] Further, between 1966-67 and 1977-78, while the share of food subsidies in total subsidies fell from 44.4% to 40. 9%, export subsidy rose from 22 5 to 29.6%.[15] Over the same period, the share of development subsides also declined by 9 percentage points.[16] Taken as a group subsidies have risen from 1% of total Government expenditure in 1954-55 to 7.6% in 1977-78.[17] There is no indication that this trend has been reversed since then. These subsidies, as has already been noted, go towards the welfare of the rural rich, and also, for the industrialist class (as export subsidy).

The Revenue Side :

The total quantum of expenditures in this year's Union Budget add up to Rs. 18,526 crores. Given the tax system already in existence, the total anticipated volume of revenue leaves the Government with a deficit of Rs. 1,975 crores, This deficit could have been met in any of three ways: first, by an expansion of borrowing from domestic and external sources; second, by

enhancing the tax effort; third, by means of deficit financing. The methods proposed in the Union Budget this year combine all three, with the last two being the most important.

Several measures of additional taxation have been proposed by the Finance Minister, giving an additional revenue of Rs 645.69 crores. After deductions from this for alloctions to the States, a share that has increased with the Seventh Finance Commission Award, the Union Government will be left with Rs. 600.7 crores. This reduces the deficit, after taking into account the Rs. 160 crores that will be available to the Government from the Compulsory Deposit Scheme, to Rs. 1,374 crores. This amount is the highest deficit so far seen in any budget proposal in India. There is of course the possibility that it will go up by the end of the year as happened last year. We shall examine the salient points in these measures below.

It may be noted that a full 97% of the additional taxes sought to be raised this year is from indirect taxes. The long term trend indicates that the share of indirect taxes in total tax revenue has been rising steadily ever since 1948-49 and has stabilised at around 70%. It also indicates the increased dependence of the Government on indirect taxes for expanding its tax revenue, and this year's budget does not in any way differ from the previous ones in this regard.[18] Now, an indirect tax on a commodity in general is regressive because it imposes the same absolute tax burden on the purchaser of the commodity whether his income is high or low. A system of indirect tax can conceivably not be rigorous if the emphasis is on taxing commodities known to be exclusively consumed by the affluent. Such a system would necessarily have to be very selective and its scope would be small. In India this is not the case and never has been. The trend has been to spread the indirect tax net in the most disparate manner, with, at times a greater degree of imposition on essentials than on luxuries (as in the Emergency Budget of 1976). But the ultimate imposition of indirect taxes regardless of their user groups came for the first time in 1978 when Mr. Patel imposed a blanket excise of 5% on all items in the Central Excise Tariff. If that year's Budget raised a record 90% of all additional revenue from indirect taxes, Mr. Charan Singh has this year beaten it with his 97% imposition, but this time in a selective way. Though there are some taxes on items of luxury consumption — high priced TV sets, stereo and hi-fi sets, etc., these are as nothing compared to the taxes on edible oils, matches, and in the name of taxation on cosmetics, on soaps, toothpaste and toothbrushes. Where the former will yield a total of Rs. 9.28 crores, the latter will together yield Rs. 83 crores, the bulk of which will be paid by middle and low income earners. This skewness apart, the additional tax raised from indirect taxes is more than 97% of total tax revenue, since there are, incorporated into the proposals, a set of concessions. These have been much talked about. They consist in the main of a reduction in excise and countervailing duties on fertilisers and a 100% cut in the customs duty on imported power tillers. These two concessions add up to a revenue loss of Rs. 105.6 crores. It may be noted that last year's budget dropped the duty on pumpsets, so that taken together, the two budgets have gone a long way towards reducing the quantum of indirect tax paid by the richer sections of the rural population. In this context, it is worth quoting the statement of a leading economist :

"While a wide range of items of consumption have been subject to additional levies in the name of resource mobilisation, for development, Mr. Charan Singh has sacrificed hundreds of crores of tax revenue from his heavily deficit budget in favour of the small crust of gentlemen farmers in the agricultural sector who use modern inputs produced at high capital cost or imported at a heavy price, derive large profit from marketable surpluses produced by them and sold at guaranteed incentive prices and pay no taxes.... It would appear that the rich farmers who do not pay any direct tax on their income are now proposed to be freed of the obligation to pay even indirect taxes on the commodities they are supplied at subsidised prices. This will further erode the base for resource mobilisation and blight prospects for development".[19]

There is one other point worth noting in the proposals for indirect taxes. By imposing taxes on commodities produced by the mechanised sector, Mr. Charan Singh has tried to kill two birds with one stone and raise revenues while simultaneously encouraging the small scale and labour-intensive sector. It is doubtful whether the market reach of the latter, especially in the case of an item like matches, is as extensive as the former. Whether this is so or not, the consumer must necessarily end up paying more.[20]

Direct taxes have hardly been touched. This is unfortunate in an economy like India's where a tremendous skewness of income exists, having serious implication for the composition of output.

Finally, there is the huge deficit of Rs 1,374 crores Deficit financing by the Government is generally paid for by those whose incomes do not rise by the same amount as the consequential increase in prices If prices are arrested from rising, they can be done so only by either freezing them statutorily or by open market operations involving the use of buffer stocks of foodgrains and reserves of foreign exchange. It is true that since both of these exist, the price rise can, in fact, be prevented In such a case it would be a matter of Government paying for the deficit financing by drawing down its own assets. But there is an important catch in this. As long as the deficit financing goes hand in hand with a high degree of investment in socially productive assets, there is a prospect of building into the system the capacity to produce commodities to match the increased income generation from deficit financing. But where this is not the case, it only needs a reduction in foodgrains output during a bad year and/or a decline in the foreign exchange earnings to create havoc in the price system[21] In any case, by way of a caveat to the argument, any deficit financing is bound to have an impact on relative prices, even if the price level in general does not change, so that the fixed income groups suffer. Where sections of the population, such as the working class and salaried groups manage to increase their money incomes by struggle, there is bound to be a corresponding increase in the prices of industrial goods, so that relative prices change, even if there is no general inflation.

In this context comes the crux of our argument. The total volume of subsidies this year alone amounts to about Rs. 1,742 crores, which is more than the size of the deficit. The general expenditure pattern of the government as well as the concessions offered by way of reductions in duties, are heavily biased in favour of subsidising the income of the rural rich.

The level of public investment is rather low, and this is in a situation where the private sector has not seemed inclined to go in for massive doses of investment.

This overall situation of subsidisation of the rural rich is taking place in a point in the economy's development where large resources are available to be channelised in the form of investments that would lead to development. Instead they are being frittered away in the interests of a small group in the countryside and in increased consumption expenditure of the Central Government. Moreover, this bias is to be paid for by means of a regressive tax system based on indirect tax that will affect adversely the urban middle class, the working class, as well as the rural poor.

All of this begs the question, what is to be done. Going within the framework, one can immediately suggest two things. First, it is vital that greater attention be paid in the raising of revenues through open market loans and direct taxes. Greater emphasis on the former rather than on deficit financing can lead to a lower pressure on prices. A greater emphasis on the latter rather than on indirect taxation could mean a greater equality in the distribution of incomes, to which all Governments at the centre have been vociferously committed. An emphasis on direct taxation for revenue would mean not only increasing the marginal rate of taxation—this is quite possible were the will to exist—but also extending the base of the tax system, by including agricultural incomes. Of course, all of this would be possible in an ideal state that does not exist. In a situation where political force of the industrial capitalist and the rural rich is powerful, it is most understandable that the bulk of the burden of development on behalf of these two sections should fall on the shoulders of all other sections of society. Mr. Charan Singh's budget, therefore, is not too out of the trend.

However, if the Union Budget is heavily biased in favour of the rural and urban rich, it is conceivable that the budgets of the states can do something to balance this trend. In this context it would be useful to pass on to an analysis of the state budgets for 1979-80 with particular reference to the Tamil Nadu Budget.

The State Budgets

We shall first take up the case of Tamil Nadu. In the budget for 1979-80, the total anticipated revenue is Rs. 849.83 crores. Of this total revenue, the contribution by the Union Government in the form of State's share of income tax, as well as of union excise duties and grants-in-aid and contributions works out to Rs. 328.56 crores, or 38.66% of total revenue. The contribution by the Union Government, due to the Seventh Finance Commission Award has gone up from a share in total revenue last year of 31.4%, i. e. by 7 26 percentage points. This is quite large and appears on the face of it to have reduced the burden of additional taxation by the State Government. However, although there is a net increase in the allocation from the Centre, it must be noted that the major increase has been in the case of union excise duties, while there has been a decline of 2.9 percentage points in grants-in-aid and contributions. The following table brings out the long term trends in this regard for the state.

From an analysis of the extent of change between 1978-79 and 1979-80, it can be observed that the largest cut has occurred in the case of non-Plan grants (by 52.72%), followed by grants from the Union Government towards the State Plan (by 18.64%).

Tamil Nadu : Central Government contributions to Revenue : Long term Trends

Year	State share of Income tax as % of total revenue	State's share of Central Excise as % of total revenue	Grants-in-aid from Centre as % of total revenue	Central Government contribution% (2)+(3)+(4)
(1)	(2)	(3)	(4)	(5)
1965/66	5.79	5.82	13.71	25.33
1966/67	5.88	9.02	11.87	26.77
1967/68	6.26	7.62	12.32	26 20
1968/69	5.86	7.92	14.90	28.68
1969/70	8.56	7.94	9.44	25 94
1970/71	9.39	8.68	8.27	26.34
1971/72	9.44	8.40	9.10	26.94
1972/73	9.16	9.16	10.58	28.90
1973/74	8.13	9.29	8.69	26.11
1974/75	8.54	10.02	5.21	23.77
1975/76	10.35	11.26	5.76	27.37
1976/77	8.23	12.07	8.60	28.90
1977/78	7.86	12.06	10.77	30 69
1978/79 B. E.	8.44	12.88	10.80	32.12
1978/79 R. E.	8.00	12.89	10.51	31.40
1979/80	8.21	22 84	7.61	38.66

Source :

Derived from Appendix I of *Appendices to Budget Speech for 1979/80*, Govt. of Tamil Nadu

B. E. Budget Estimates

R. E. Revised Estimates

There appears also to be an element of conjecture involved on the part of the Finance Department in retaining the allocation to Centrally Sponsored Schemes, when due to the Seventh Finance Commission, there have been some changes in this regard. The consequence appears to be that the State has been given the choice of either expanding the State Plan from its own resources or in the event of its being unable to adjust its revenues, to leave the State Plan at the earlier level, if not go in for an outright cut.

An examination of the total outlay by the State toward the State Plan indicates that the total outlay has risen by about 6%. However, the allocation under Centrally Sponsored and Central Sector Plans shows a net decline of about 3.75% between 1978-79 and 1979-80, so that total Plan outlay has risen by a mere 4.5%, relative to the increase in the Union Plan outlay of 7 4%. This small increase itself has been distributed within the Plan in a somewhat interesting way. There has been an absolute decline in the allocation for six heads, namely Agriculture and Allied Services, Co-operation, Industry, Mining and Metallurgical Industry, Transport and Communications, Social and Community Services, and Economic Services. There is, correspondingly, a large increase in allocations to each of the heads, Water and Power Development and Village and Small Industries, while there is a token rise in the allocation to General Services. Within the sector Agriculture and Allied Services itself the budget documents reveal a significant decline in almost all items, including minor irrigation, with a large increase in dairy development from a token Rs.3 lakhs in 1978-79 to about Rs. 14lakhs, ostensibly due to the Operation Flood II, and an increase of Rs. 16 lakhs under community development schemes. [22] This last is due to the new Employment Guarantee scheme inaugurated this year, about which we shall have more to say later.

An interesting aspect of the budget expenditure is the very large increase in the share of Government consumption expenditure over that in the last year, from 28.61% to 35.89% of total expenditure. [23] It is apparent that this has cut into the State's capacity for developmental expenditure, necessitating various reductions. Clearly, these have involved a relative neglect of industry on the one hand, and general social welfare schemes on the other. Although the decline in allocations to economic services is significant, it is to be noted that its share in total plan expenditure was not high last year either, being a mere 0.1%.

The general picture is thus one of lopsided priorities. In his budget speech, which incidentally marks a departure from the traditional format, the Finance Minister has stated, "This Government is committed to the major objectives of increasing employment opportunities, particularly for the poor people in the rural areas and increasing and expanding the educational and medical facilities during the current year... Special attention is being paid for the development of the agriculture and allied sectors as well as for power development" [24]. With a decline in general education allocations from Rs. 2 038 lakhs in last year's Revised Estimates to Rs. 1,535 lakhs in the current year's budget, and a drop in allocations to technical education from Rs. 120 lakhs to Rs. 92 lakhs, the only area where some emphasis has been given is to medical education from Rs. 474 lakhs to Rs 684 lakhs. Moreover, the huge cuts in allocations to Water Supply and Sewerage, Labour and Labour Welfare, and for Welfare of Scheduled Castes, Tribes and other

Backward Classes, from a total of Rs. 3,503 lakhs to Rs. 3119 lakhs would also mean a lowering of the social welfare schemes that are to some extent available for the poorer groups of society.' [25]

There is, of course, a major new scheme where the problem of unemployment is concerned, and that is the Employment Guarantee Scheme referred to earlier. Under this scheme, "all unemployed villagers above 18 years of age may register their names requesting for employment. *Works will be taken up in order to ensure them job opportunities generally within the district Such works will be executed* under the direct supervision of the respective Government *departments without being* entrusted to contractors". [26] This, without doubt, is a commendable step towards employment generation, especially since it has built into it a clause to eliminate middle-man exploitation. What is even more commendable, however, is that persons registering under the scheme will be able to get some token income even on days when there are no jobs to be given to them. The seriousness with which the problem of unemployment is viewed within the framework of the development philosophy currently being propounded in New Delhi is also reflected in the increased emphasis on village and small industries, and the sum of Rs.153 lakhs being allocated toward expansion of the District Industrial Centres to cover the entire State. The long run impact of such development coupled with a corresponding decline in attention to industrial development, [27] is, of course a different matter, and would really involve an analysis of the policy of the Union Government That the State Government is not following the Centre in full is apparent from the revenue side, where the Finance Minister has proposed a single point tax on hand-made matches which will wipe out a large part of the additional burden imposed by Mr. Charan Singh on mechanised match industry.

This analysis of the State Government's budget is not to be regarded as a complete one. For our purpose, however, only one more point needs be made. The Finance Minister this year has not sought to burden consumers in the State with a host of additional indirect taxes over and above those imposed by the Union Government. The only additional taxes, in fact, are a token 2% single point tax on coconut to prevent tax evasion on copra, and an extension of the sales tax surcharge to embrace a wider section of the urban conglomerates in the State. It is not to be expected that either of these, or the addition of a tax on matches, referred to above, will add any large sums to the exchequer.

In sum, therefore, it appears that this year's budget for Tamil Nadu is characterised by little fresh tax effort to increase revenues, a relatively low increase in Plan expeniture, which in effect goes to maintain normal Plan levels more than anything else, and the bulk of additional revenue from the Centre going either into a greater degree of consumption expenditure or being retained to reduce the net deficit level from Rs. 14.34 crores in the Revised Estimates for 1978-79 to Rs. 4.25 crores. The overall effect for the State is the same as what was noticed in the previous section of this paper for the Union Budget; like the centre, the State has also let by an opportunity for massive mobilisation for development. Whereas in the case of the Centre, however, one can be justifiably critical of this fact, this is not wholly so for the State. For one thing, the evolution of Centre-State financial relations in India has been such as to concentrate an increasingly greater share of resources in the hands of the Centre. The only major area where the States can raise resources,

namely agriculture, is very often out of bounds for reasons of political feasibility. To the extent that such feasibility does not exist, the State Governments appear to have little choice but to cut back on expansion of developmental expenditure rather than try to raise resources themselves.

This aspect is clearly illustrated if we look at the budgets of other States. Without trying to be in any way "representative", we shall take up the case of a few States and the implications of their budgetary decisions.

Punjab and Assam, and to an extent Orissa, have not made any attempt to raise fresh taxes. [28] In the case of Punjab, where the net deficit is somewhat high, at Rs. 43.82 crores, the decision to raise fresh taxes has been put off to July; in Orissa, some effort has been made to cut down the overall deficit of Rs. 8 99 crores, by enhancing the rates of tax, duties and cess on those already in existence. By contrast, Assam has not only not raised additional taxes, but has also gone in for concessions on the revenue side to benefit the poorer sections. As is to be expected from our analysis above, none of these states have gone in for any major developmental effort although some attention is paid to measures of social welfare, as in Punjab where the sum of Rs. 31 crores has been earmarked to be spent on Harijan Welfare Schemes.

Rajasthan and West Bengal are the only States that appear to differ from this trend. Rajasthan [29] has gone in for significant increases in its Plan effort, with the outlay being 16.42% higher than that of last year. It is noteworthy that Rajasthan has also made a corresponding effort to mobilise fresh resources, these adding a net amount of Rs. 30 crores to the exchequer, and deriving largely from taxing the rural sector through increases in the land revenue rates, water supply rates and irrigation rates.

West Bengal is noteworthy on several counts. First, the total additional revenue to be raised in the state will add Rs. 40 crores in a full year, and Rs. 37 crores in this one. [30] This is a record for any State in India, and is all the more impressive because it is over and above the same amount announced last year as additional mobilisation; and West Bengal is not to be regarded among the most affluent ones in the Indian Union. On the expenditure side, West Bengal's budget is remarkable for two reasons. First, it seeks to give a genuine degree of autonomy to the village panchayats by allocating the sum of Rs. 16.2 crores to be distributed among them and spent on schemes that each panchayat decides to undertake. [31] Second, the unemployment insurance scheme begun last year in West Bengal "with so much derision from all sides" now extends to around 200,000 persons, each drawing Rs. 50 per month and costing the exchequer Rs. 12 crores. [32] These two typify the nature of budgetary spending in the State, which seems committed not only to the major social problems as alleviation of unemployment but also to the political commitment of decentralisation that swept the nation in 1977, and in fact, remains the only State to have done so. Correspondingly, the pattern of distribution of the tax burden this year indicates the seriousness with which the State is approaching the issue of reducing the disparities in income. The bulk of the sales tax hike is on items of luxury consumption as "cushions and mattresses made from rubber foam, gramophones and its components, records cosmetics, synthetic resin and plastic foam". [33] However, a letter by the Finance Minister, Dr. Ashok Mitra, is revealing of the limitations set on such

efforts on the part of the State Government.[34]

The general tendency to either cut down on plan expansion or go in for large efforts at tax mobilisation on the part of the states appears puzzling at first glance when it is observed that the States have received a large windfall of Rs. 3,440 crores due to the upward revision of the states' shares in Union tax revenues. This amount, which represents a full 85% increase over the share distributed last year, is very impressive indeed. But a closer examination reveals that this is not a representative figure where the real transfer is concerned. The total quantum of loans and grants to the states has declined from Rs. 631 crores to Rs 316 crores, (i. e. by about 52%) and development assistance outside the plan has also been reduced from Rs. 805 crores to Rs. 666 crores, i. e. by about 17%. The cut in the Central assistance to States' Plans is almost double the total of these two items put together, having fallen from Rs. 3,112 crores to Rs. 2,300 crores. The net gain to the States from the increased transfer thus works out to a mere Rs. 316 crores. This modest increase is slightly augmented when certain other items of transfer, as assistance for Centrally Sponsored Schemes is taken into account, so that the total rises to Rs. 406 crores. This sum, it must be noted, is somewhat less than the overdraft of Rs. 550 crores that was cleared by the Centre in 1978-79. In effect, therefore, the States have little option but to cut down on their plan allocations. Thus, in the last analysis, it is the actions of the Centre that must be held responsible for losing the opportunity to go in for a massive development effort when resources exist to sustain it.

It is again worth mentioning that not only is it with reference to changes in the quantum of transfers to the States that the Union Government's budgetary action is felt upon the States. An important item not covered here is the planned outlay by the Centre on public sector projects. In Tamil Nadu two major examples that immediately spring to mind are the Salem Steel Plant and the Neyveli Lignite Corporation. However, since we are here interested primarily in the budgetary transactions, especially as reflecting in the State Plan, expenditures on such huge projects have been left out. Another way in which the Centre affects the State's economy can be seen in the case of kerosene in Tamil Nadu. Ever since the budget of the Union Government was announced, there has been a severe shortage of this commodity, much to the detriment of the lower income groups. It appears at first glance that this is not as much due to the budget as it is due to the shortage created by the shortfall in supply of crude a month or so earlier. There is some weight in the argument. However, it appears to us that although there was indeed a decline in supply for a short while during the crisis in Iran, the main factor behind the shortage in supply is a deliberate cornering of the stocks by a small group of affluent traders and profiteers. It is a fact that the increased capacity for hoarding by such interested groups is greatly enhanced by the policy of deficit financing followed in the country. Deficit financing, while it generally goes to curtail the consumption of the poor and low income groups, simultaneously places greater command over resources in the hands of the affluent. In a phase where there is an upward pressure on prices due to the deficit financing, in the first place, the role of this group is to profit by speculation and artificial scarcity. The range of loopholes that exist in the wealth tax and income tax rules for tax avoidance only add to the problem.

Conclusions

For the last three years the Indian economy has had the advantage of huge reserves for development in the hands of the government in the form of foodgrain stocks and foreign exchange reserves It would therefore be expected that these reserves would be utilised for embarking upon an ambitious and sustained effort at developmental investment. In an economy like India's, where the State has come to play a greater and greater role in economic activity, it would be expected that public investment would make a quantum jump, thereby leading to investment all round.

The budget is not merely an accounting exercise.[35] Although it does, as we stated at the beginning of this paper, represent an estimate by the government of the quantum and pattern of expenditure anticipated in the forthcoming year as well as a set of proposals regarding the manner of resource mobilisation for these expenditures, the budget in India is also of great importance in that it is one of the most important policy instruments that the government has for manouevring the economy along some defined direction of development. It would therefore be expected that the budget of the Union Government as well as of the States would reflect the need for a massive investment drive in the economy.

This does not seem to be the case. It definitely is not so where the Union Government is concerned, and, if the partial analysis of the budgets of the States can be taken as in any way reflecting the trend, does not seem to be so in the case of the States either. Indeed, it would appear that by manipulating the transfer of resources to the States, the government has effectively put most of them in a position where their State Plans have to mark time. This in part appears to be due also to the limitations of political strength and will among the State Governments.

On the contrary, the Union Government appears to have gone out of its way to offer subsidies to the rural rich, without tampering in any way with the subsidies and concessions already available to the class of industrialists. The State Governments have also by and large followed the lead given by the Centre in this respect. This subsidisation implies a frittering away of the resources available to the economy for development. Moreover, since there is a marked degree of dependence on deficit financing to sustain this level of subsidisation, it also implies that the economy will be faced with a very severe inflation when the foodstock levels fall and a bad agricultural year occurs. Moreover, with what appears to be a more or less conscious decision to fritter away the unused foreign exchange reserves for the purpose of consumer import at a time when trends indicate that export earnings are not going to sustain themselves, the government seems also to have decided to lose opportunities for the future. Thus, if today the cost of the subsidies to the rich farmers, landlords and industrialists are being borne by the middle class and the rural and urban poor alike, tomorrow, with a bad year, it will hit economic development in general, with a greater burden pushed on the poor.

Thus, not only has the chance for a sustained investment effort been lost, the nature of the budgetary operations this year appear to be such as to jeopardise development itself at a future date.

Notes

The author is indebted to K. Nagaraj for a great deal of time spent in clarifying issues and ideas for this paper Responsibility for opinions expressed as well as for errors in the argument are, of course, the author's alone.

1. Government of India, *Economic Survey, 1978-79.*

2. Shreekant Sambrani, Avinash Suklikar, N. V. Venkatraman, "Real Capital Formation Declines", *Economic Times,* New Delhi, 28 February, 1979.

3. "The Annual Plan", Editorial in *Economic Times,* New Delhi, 28 February, 1979.

4. *ibid.*

5. Government of India, *op. cit.*

6. *ibid.* and Government of India, *Budget Speech of the Finance Minister, 1979.*

7. C. V. Gopalakrishnan, "Is the Stiff Dose Necessary?" *The Hindu,* 7 March 1979.

8. *ibid.*

9. "The Plan : Rhetoric Belied", *Economic and Political Weekly* 17 March, 1979.

10. *ibid.*

11. In this context, see Arvind P. Gupta, "Who Benefits from Central Government Expenditure", *Economic and Political Weekly,* Annual Number, 1977, where it is argued that "for every rupee which the poor paid as tax, they received only 80 paise in return", *including* the share of social welfare programmes that percolated down to them. The estimate is for the year 1973-74.

12. It may be noted in passing that the 7.4% increase is an understatement for all real purposes. With the sum of Rs. 835 crores transferred to non-Plan expenditures from last year's Plan outlay, the actual expansion in terms of allocation on new and ongoing plan schemes would work out to 15 — 15.9%, depending on whether the denominator is adjusted or not. Many analysts have chosen to overlook this point.

13. Government of India, *Budget Speech of the Finance* Minister, *op cit.*

14. Report in the *Economic Times,* New Delhi, 13 March 1979.

15. M. V. Raghavachari, " Growth of Budgetary subsidies of the Central Government", *Economic and Political Weekly,* 3 March 1979.

16. *ibid.*

17. *ibid.*

18. The table also shows a significant decline from 1975-76 in the ratio of indirect taxes to total tax revenue. Although this needs further investigation, it is possible that there are two important reasons for this. First, the Voluntary Deposits Scheme was announced in October 1975. A part of the disclosures

made under this scheme was taxed, the rates ranging from 5 to 25%; these tax revenues could have inflated the figures for direct tax revenue. Again, a period of falling and then stagnant prices from late 1974 up to the latter half of 1976, coupled with a relatively stagnant output level (growth in agricultural output, which does not enter the tax net being irrelevant to the issue) would have led to a decline in the value of excise tax recoveries, thereby depressing the level of indirect tax revenue. The official argument, that the share of direct tax revenue rose because with the decline of the marginal rate of taxation on income during the 1976-77 Budget year evasion also declined is a bit difficult to accept. There is little reason to believe that a reduction in the tax rate will reduce evasion in any way since it is doubtful whether tax evasion is made on the basis of opportunity costs between evasion and getting caught at different levels of taxation.

19. Balraj Metha, "A Sectional Budget", *Indian Express,* 3 March, 1979.

20. In this context, see S. Boothalingam, "A Mixture of Emmolients and Irritants" *Indian Express,* 8 March 1979.

21. An Editorial in the *Economic Times,* New Delhi, dated 28 February 1979, after mentioning the speech of Dr. I. G. Patel at the Annual Meeting of the Indian Merchants Chamber where he "Strongly cautioned businessmen and economists alike from jumping to the conclusion that just because large increases in the supply of money have not caused any increase in prices in the last three years, they will not do so in the future.", goes on to say, "... if a rise in the supply of money leads to a rapid increase in production, there will be little or no price increase. By contrast, if production cannot or is not allowed to increase, the increase in money supply will sooner or later dissipate itself in a rise in prices. In the Indian context, the rise in supply of money is a fact ... Therefore the only choice before it (the Government) now is whether to try and raise production as rapidly as possible without further increasing the supply of money, or to sit back and wait for the next bad monsoon to push up prices to the required extent ..." In this context, "The Reserve Bank ... is not directly entrusted with the responsibility of bringing about a rise in production, all it can do is to try and curb the overall growth in money supply. Unfortunately, since it cannot make the banking system refuse to advance money against food procurement, or buy foreign exchange, its only option is to curb the growth of credit to the commercial sector, this can only inhibit the growth of production ..." The analysis speaks volumes for the institutional constraints on financial measures for development in India.

22. *Appendix to the Budget Speech for 1979-80,* Government of Tamil Nadu Appendix V

23. *Annual Financial Statement (Budget) of the Government of Tamil Nadu for 1979-80.*

24. *Budget, 1979-80, Speech of Thiru K. Manoharan, Minister for Finance,* Government of Tamil Nadu, 1979.

25. *Appendices to the Budget Speech for 1979-80, op. cit.*

26. *Budget, 1979-80, Speech of Thiru K. Manoharan, op. cit.*

27. In fairness, it must be noted that the Tamil Nadu budget has not ignored the industrialist class altogether. Among the recommendations of the Kaiwar Committee that have been accepted is the

compounding facility of tax due being liberalised. The budget speech of the Finance Minister (*op. cit.*) also mentions that Government has decided "to amend the Sales Tax Laws to encourage industrial growth."

28. Data from Punjab is from *Economic Times,* New Delhi, 5 March 1979, and for Orissa and Assam from *Economic Times,* New Delhi, 6 March 1979.

29. *Economic Times,* New Delhi, 6 March 1979.

30. *Economic Times,* New Delhi, 24 February, 1979.

31. A special Correspondent, "Of Mice and Men: Victims of the Budgeting Game" *Commerce,* Special Issue, 17 March 1979.

32. *ibid.*

33. *Economic Times,* New Delhi, 24 February, 1979.

34. Ashok Mitra in the Letters to Editor Column, *Economic and Political Weekly,* 27 January 1979, says:

"A State Government can of course rescind all indirect taxes falling within its ambit, but it has currently few powers to tax the rich. The representatives of the feudal and capitalist classes who drafted the Constitution had taken due precaution against the possibility of radical elements suddenly coming to power in a state and upsetting their applecart. It is only in the case of the rich peasantry that a State Government can draw a stiff agenda of direct taxation; theLeft Front Government of West Bengal has already taken some steps in the matter. As far as taxing directly the rich capitalist and trading classes is concerned the upper limit of a State Government's power has been set by the Constitution at Rs. 250 annually, or Rs. 20.83 per month."

35. It is one of the problems of the Indian economy that the budget has been treated primarily as if it were an accounting exercise, with little regard for planned long term impact, so that given the weakness of the Planning machinery and its further weakening with the concept of rollover planning, the budget as a policy instrument has increasingly become an instrument manipulated on behalf of sectional interests.

April Seminar
Summary of Discussion

Several fundamental issues pertaining to the 1979-80 budget were discussed at the Seminar on April 26, 1979 at the Institute when the paper "Union and State Budgets: 1979-80" was presented by Mr. K. Bharathan.

Presenting an outline of his paper, the author stated that a review of the position of the economy at the beginning of the financial year 1979-80 revealed that the economy was in a comfortable position with large foodgrain buffers and foreign exchange reserves. However, investment was observed to be low in the public sector and declining in the private sector.

Moving on to the Union budget, the author noted that an allocation of 34% of the outlay on government consumption expenditure left little for development purposes. Outlay on welfare schemes declined relative to the 1978-79 level and this was felt to be a dangerous trend. He highlighted the fact that the budget set aside a huge Rs. 1,742 crores for granting various subsidies—subsidies which aimed at facilitating the poor farmers and industrialists but ultimately favoured a small section comprising the urban and rural rich. The level of public investment was observed to be low and fresh investment in the private sector showed a steep fall. The keynote of the author's argument therefore was that a large chunk of resources was being "frittered" away in the form of subsidies which served the interests of a minority at a time when massive investments were required for development.

On the revenue side, the author pointed out, resort to indirect taxation and an increase in taxes on common consumer items laid the burden on middle and lower income groups and favoured the rich. The author noted that there was marked dependence on deficit financing, and this, he feared would cause inflationary pressure unless offset by drawing on reserves.

Against this background the author reviewed the immediate impact of the budget on the economy. He noted that the budget had caused the wholesale price index to shoot up, taken the inflationary rate from 1.4% in the last week of February to 5.4% in the week ended April 7 and raised the prices of basic items like pulses, edible oils. petroleum, textile products, etc, In the case of intermediate products it bolstered the already rising prices and thereby affected the cost of investment. This in turn affected the declining trend in investment in the private sector. The erosion of outlay by cost escalation, it was felt in some quarters, would increase the overall budget deficit. Here the author presented the opposite view of the Finance Ministry that "the direct impact of the budget on the price level will only lead to a 1% increase in it". The author also touched upon some of the fresh concessions announced on April 24. The concessions offered to direct tax payers (eg. the concession on capital gains tax) were regarded as important since they reduced the direct tax base to some extent. However the concessions on indirect taxes were viewed as being trivial, serving, if at all, only to increase the deficit further.

The author then analysed the budgets of a few States. He observed that in general, there was *a tendency on the part* of the States to cut down on plan expansion. There were of course a few exceptions like Rajasthan and West Bengal. Although the Union had announced allocation of a larger share of Union tax revenues to the States, this was counter - balanced by a decline in loans and grants and development assistance to States. Despite the launching of some commendable schemes (eg. the Employment Guarantee Scheme in Tamil Nadu), the overall anticipated investment was meagre. The author observed that this led to the relative neglect of the organised industrial sector.

The author concluded that on the whole, the Union and State Governments had let by an opportunity to mobilise resources for investment on a large scale. And at the cost of investment, the Union, and to some extent the States, had allocated large portions of their outlay for granting subsidies. In addition, the heavy dependence on deficit financing, he felt, would severly affect the future course of development.

There was some hesitance among the participants of the seminar in accepting the main argument of the paper that investment in the 1979-80 budget was low and the budget, by means of providing for various subsidies, favoured not the poorer sections of society as it claimed, but the richer sections. It was stated that although investment appeared to have been lowered *in some sectors it* was balanced by an increase in others, as for example in the irrigation sector. Despite heavy taxation, an expansionary market was anticipated. The line of argument was this: the savings in monetary terms being stable over the last few years and savings in physical terms (in terms of buffer stocks of foodgrains and foreign exchange reserves) being substantial, increased investment was envisaged particularly in sectors like irrigation, SFDA and *small industries*. (Experience showed that investment in these sectors in the past had been rewarding) This was bound to provide employment to greater numbers and thereby increase their purchasing power. However, it was counter-argued that increase in purchasing power was not in real terms but was only absolute since the (deficit) budget was clearly inflationary. The author defended his stand in the paper by stating that increase in purchasing power, if at all, would be uneven for, investment in areas such as Operation Flood, SFDA, etc. was trivial. The *resulting lop sided developmental pattern* would cause concentration of purchasing power in a few hands and aid the rich.

At the discussion, the general impression (which was in agreement with the author's view) was that governmet subsidies were not benefiting the sections for whom they were intended. It was doubted whether these subsidies led to either the creation of empolyment or an increase in wages. Instead they appeared to benefit the prosperous—the subsidy on tractors for instance assisted the richer rather than the *marginal farmers*. The government's move of reduction of fertiliser prices was another example. Since fertilisers were used on a large scale only by the affluent farmers, a lowering of their prices only hiked the profits of these farmers. All these led one to wonder whether the government's policy aimed only at achieving the larger objective of increasing agricultural output irrespective of their own claims to the contrary and means adopted. In contrast, there was a feeling among some members that the benefit by way of subsidies was negligible even to the richer farmers, for the greater

problems of storage, transport, marketing, etc. which they faced still remained.

A criticism levelled at the budget itself was that it *simultaneously tried* to employ fiscal and monetary measures to offer incentives and impose curbs. Further, there was some controversy over whether the budget's impact was felt in the short run alone or in the long term too. It was suggested by a participant that to complement the concept of Rolling plan, a "Rolling Budget" be introduced. This would provide for budget revisions as necessitated *by circumstances. The Rolling Budget* was particularly favoured for projects of long gestation period.

It was felt, on the whole, that the higher taxation of basic consumer items such as soaps, kerosene, etc. pushed up their prices; people bordering on the poverty line, unable to cope with the rise in prices, would be forced to go below the poverty line. This clearly contradicted the professed government policy of reduction of unemployment and inequalities in income. It was felt that greater scope existed for exploiting the direct tax instrument (agricultural tax in particular). It was emphasised that the government must necessarily analyse the impact of budget proposals on different sectors, products and sections of population before finalising the budget. A suggestion offered was to study in depth the working of the differential interest rate scheme and other credit incentive schemes in order to assess their effectiveness. It was felt that the paper ought to examine the employment prospects of the budget.

The seminar was chaired by

Mr. S. R. Kaiwar

OBITUARY

Sister Catherine McLevy who died under tragic circumstances on 4th June, 1979 was a close associate of the Institute, especially in the Adult Education Programme. She was also one of the leading figures in the special seminar on "Development of Education in Tamil Nadu 1976-86" held in 1975-76 and her contribution is recorded in the publication **Backdrop to Learning Society.**

In recent years Sister Catherine was devoting all her time and energies to be of *service to the poor, the underprivileged and the neglected.* It has been rightly stated that she was "Mother Theresa to the people of the city of Madras and its suburbs." The crowds of people from all walks of life, especially those whom she ministered to, who assembled in the premises of the St. Thomas Convent, Mylapore as the sad news of her death spread bore testimony to her mission in life.

Through her concern for the poor, insights on educational problems, devotion to duty, healthy criticisms and gentle manners she showed what an individual could do to bring hope *and reconciliation* in our troubled world. Her untimely death is an irreparable loss to her many friends here and the world over.

Engineers and the Economy *

Introduction

This meeting of the rather impressive cross section of the country's engineering and scientific talent which has two things in common — first that of benefiting from a period of study in the Federal Republic of Germany, and second that of serving the country as managers, scientists or teachers — might be an occasion to look at our economy and consider in what ways scientists and engineers might further promote its growth and development at this time. I have thus taken as my theme for this inaugural discourse the title " Engineers and the Economy".

Positive elements

There are many positive features of the economy today which can act as a signal for our helping to achieve a breakthrough in the poverty morass in which we are caught. The President in his address to Parliament this week reminded us that the year 1977-78 witnessed a growth of national income of 7.4 per cent at constant prices, which is one of the highest growth rates recorded in our thirty years of Planning. Parallelly the Central Statistics Organisation reports that our per capita income in that year rose by 5.2 per cent to Rs. 689.90 and our per capita final consumption expenditure increased by 4.8 per cent to Rs. 552 — all at constant prices. The President also points out that an additional irrigation potential of 26 lakh hectares was created in 1977-78, the highest ever achieved by any country in the world in a single year. As a result of a record 125.6 million tonnes of food grains production (which also marks the third successive year of plentiful production), our foodgrain buffer stands at around 20 million tonnes. Price stability has been maintained for the second year, the Presidential address pointing out that the price index for April-October 1978 being on the average 1.1 per cent lower than that for the same months of 1977. Due to the large and steady monthly remittances, our foreign exchange reserves have passed the Rs. 5000 crores mark. These are strong foundations on which engineers and managers can build a further forward movement.

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* Inaugural Address by Dr. Malcolm S. Adiseshiah to Seminar, Former Fellowship Holders of the German Academic Exchange Service, I. I. T. Madras. February 23-25, 1979.

Weaknesses

There are, however, weaknesses with which we must contend.The first is that the state of the people — a little over 40 per cent of our people — living in poverty has not improved and in fact the condition of the very poor, called the destitutes has worsened in some states, such as in all the 4 Southern States and West Bengal and Orissa, as seen in 1973-74 NSS data. A curious fact — not so curious to economists who know the effect of maldistribution — is that, with the abundant foodgrains production, massive foreign exchange reserves and large stocks of sugar, textiles, jute, mass consumption is not increasing and the state of the poor not being relieved. In fact we seem to have developed an economy which can deal with drought and shortages but is lost when faced with normalcy or relative abundance. Second *the employment problem is becoming a* massive and difficult one. A review of the Reserve Bank of India points out that, despite the average annual increase of 5.3 per cent in industrial production and 4.1 per cent in gross national product during the four year period between March 1973 and March 1977, *the employment growth* rate in the organised sector declined continuously from 4.1 per cent to 2 5 per cent during that period. Actually the number additionally employed in this period increased by 18.74 lakh persons in the public sector and by a mere 18,000 persons (in four years) *in the private sector.* A third constraint is our poor industrial performance. We are not agreed on our actual growth figures for industry : is it 6 per cent as the Planning Commission has it or 9 per cent as the Industry and Finance Ministries have it, but even more serious, the performance in the hard core sectors of fertilisers, oil and gas, steel, cement, paper, aluminium and other non ferrous metals as well as our shipping services *place* us in a state of continuing shortages. Investment is slackening and the gross capital formation of the private sector declining. Fourth our foreign trade balance in the first 9 months of 1978-79, April-December, shows a deficit of Rs. 784.89 crores and for the year will be well over Rs. 1200 crores. The disturbing aspect of this trend is not the deficit, but the fall in the exports of our old standbys-coffee, tea, cashew, steel, cement, textiles, which is a reflection of our poor production performance and the growing protectionism abroad. At this point, it must be noted that the *international* perspectives for our growth and development are not too bright. The Tokyo round of the GATT negotiations are not encouraging for our international trade futures, the World Bank computes that the balance of payment deficits of the oil importing developing countries will rise to $ 60 billion in the next decade, and the International Monetary Fund refers to the halting process of recovery from recession of the industrialised countries, because of the slow down of investment resulting from the cost push *inflation* which has eroded profit margins and introduced uncertainties in international economic relations.

Tasks

Against this rather mixed picture of the economy and of economic trends confronting us, what are the major thrusts that the engineering and scientific profession and their research, teaching and training institutions may give thought and attention to in order to develop our economy and help in the attainment of our national goals of poverty eradication, employment generation and economic self reliance.

Rural Industries

One area demanding our particular technical attention, which would counter both our poverty and growing unemployment, is the development of rural industries within the programme of integrated rural development. Rural industries, it may be recalled use technologies which have a low captial output ratio which is appropriate for our country with its capital shortage, and which also result in a low capital employment ratio, which is needed for our employment hungry economy, while at the same time producing a product which meets the quality needs of the people. The rural industries comprise ancillaries and consumption goods production units. One area where all of us engaged in medium or large industries can act is to promote decentralization of ancillaries in the rural areas, which will also reduce capital and maintenance costs. The other group of rural industries comprises 23 consumer goods units, of which the most important are food and beverage in which I include problems of post harvest technology which is one of the items in your seminar programme, textiles, wood work ferrous and non ferrous metals. Within each group, there are two types of units — one catering to the massive cheap rural market and the other the urban limited sophisticated market. Of course there is some overlapping between the two, such as the case of the villages surveyed by the Madras Institute of Development Studies which showed that the village where there was no safe drinking water available, had, however, on sale coco-cola — which incidentally raises questions about the adequacy of our sumptuary legislation concerning prohibition. The rural industries, particularly that part which caters to the large massive rural market, need our assistance in all 8 stages of the project cycle, comprising project identification and definition; project formulation, preparation and feasibility analysis; project design, appraisal, selection; credit negotiation and approval; project activation and organisation; implementation, operation and control; completion, output and diffusion; project evaluation and follow up. I believe that our engineering scientists and institutions should enter this area of rural industries and involve themselves as fully in them as they do in the more traditional medium and large industries.

Energy futures

A second area which demands our attention is the energy area, and I am glad that one of your sessions is devoted to the theme of energy technology and alternative energy sources. I referred earlier to the World Bank estimate of the oil importing Third World countries going in for a $ 60 billion balance of payment deficit during the eighties. This estimation is based on a linear growth in the use of crude and its products as the main energy source into the future. The search for alternative energy sources should now be speeded up. In a sense this is even more needed in the industrialised countries who consume 99 per cent of the total annual energy output 7000 million tonnes of coal equivalent than in India and the developing countries. It is, however, easier to turn to alternative energy sources in India and the Third World generally, because the tradition already exists in our countries to rely for the main, as our villagers do, on non fossil fuels. There is a large and impressive area of bio fuels which our scientists need to concentrate their research on, to meet our future energy needs. There are also obvious stopping of wastage and the positive promotion of economies in fuel use, on which a good start was made by our engineers and managers in the early years of the OPEC price rise, but where there has crept in some slack more recently.

Whether it be in coal replacing fuel oil, or fuel oil replacing ISD, and HSD, or diesel replacing petroleum, the possibilities of economy in the use of this scarce energy source needs to be optimised. And then there are the non conventional energy sources—solar, wind, tide, etc. on which the national laboratories and engineering institutes are working — in a kind of peripheral way. These need to be moved a little more into the centre of our concern. In this connection, only on Wednesday, the government reported to Parliament the proposal for setting up the Animal Energy Development Corporation at a cost of Rs 6 crores during the Sixth Plan period. The corporation is to coordinate, fund, study, regulate and support the development, management and utilisation of animal energy resources in the country through (a) redesigning of carts, implements, tools and machinery using animal power, (b) manufacturing of improvised and standardised versions of animal drawn carts, accessories, implements and machinery and (c) software research on organisation, credit user acceptance, training, extension etc., and the establishment of machinery for enforcing laws against wastage of animal power etc. It was for me a matter of some pride and considerable satisfaction that this important proposal enumerated from an education cum research institute like this one, where we are meeting.

Energy Education

A third area where a major thrust must be undertaken is education in general and engineering education in particular. Engineering education (probably along with medical education and agricultural education) is the last rampart holding on to human capital as a contribuant to the country's economic development and growth from being swept away by the general irrelevance and inequalities which the educational system represents. From this point of view of holding aloft the torch of human capital formation and the remanants of respect and relevance of education, engineering education carries a rather serious responsibility in the country. A second issue facing engineering institutions is the need to meet the demands for democratisation, which means its moving away from the system of meritocracy and the social selection syndrom which has characterised engineering education and research upto now. This raises the question whether any process of equalisation is in conflict with the canons of excellence by which this Institute, for instance, lives. I personally think not, but I must admit that we in India do not have the minimum empirical evidence or research back up to answer this question in an objective manner and this we need to develop quickly — the departments of humanities or social sciences in these institutions can make a start on these investigations — as otherwise we may be in the position of institutions and persons who have all the answers while having forgotten the questions. That is what the inexorable commitment to equalise access to our institutions would mean. Finally I am glad to notice an increasing movement of engineering and science teachers and researchers into the consultancy and industrial fields. Of course all of us perfer this endogenous mobility to the exogeneous one, which we have to form the brain drain and in which engineers and IIT completers are particularly involved. I know at bottom the reason for this national loss is that our economy and industry have not matured to a point, and are not expanding fast enough to absorb the entivety of this high level scientific group. But I hope that the endogenous movement that I referred to earlier can be further strengthened and enriched in two ways. First I would like to see the present one way movement of engineering teachers

and researchers moving out to the world of consultancy and industrial production turn into a two way flow, — that is also for our education institutions and research establishments attracting back the scientists and engineers who have served in industry as technicians or advisors. For this I believe that the teaching and research establishments must offer some — not necessarily the same — element of risk taking and decision making and the rewards that go with it, as is to be found in the larger, broader and more challenging world outside. Second I would also like to see our engineering teachers and researchers moving into the area of what I described earlier as integrated rural development. We have accepted as a policy the need to set apart a certain proportion of our engineering admissions to people from the weaker sections and students from the rural areas. But let us remember that the imbalances that we must correct are not only social; they are also spatial. The movement of scientists and engineers — teachers and researcher — must not only be through attracting the best rural talent into institutions, it must also include our best engineering talent going out and serving the villages. That was the innovative part of the Integrated Rural Development programme that we started in the Fifth Plan, with which we associate the name of Dr. Nayudamma the establishment of rural colonies of scientists and engineers to spark rural development. And it is in the hope that you will participate in this all round movement this two way and this three way movements to push forward our development, earn your rewards and have a sense of job satisfaction — that I take pleasure in inaugurating this seminar organised by the Germen Academic Exchange.

Ninth Census of Social Science Research in Southern Universities

1979

The Ninth Census, as the title suggests, deviates from the earlier eight in that the coverage has been extended to all Southern universities instead of restricting itself to Tamil Nadu alone. The inclusion of all the Southern Universities and research institutions was the consequence of the decision arrived at in the meeting of the Heads of Departments of Social Sciences of Southern Universities in December 1978.

The Ninth Census is a break from the preceding ones also because it has included only post-M.A/M.Sc. research projects. This has been necessitated by the wider coverage this year. The questionnaires were issued, as is the practice, in February 1979 to about 52 departments of 12 Southern Universities, 10 research institutions and 8 colleges. Response came from 30 departments of 12 universities, 7 research institutions and only 1 college. Data were collected on research projects which were in progress and those completed in 1978. Information on objectives and methodology of the project, commencement and termination dates and degree to be awarded was gathered.

On the whole, the response was extremely encouraging. The figures for 1979 have been presented in Table 1 along

with the figures for the earlier years. Unlike the earlier census, the Ninth Census has not attempted sub-classification of each subject. For instance the head Economics includes Economic History, Demography, Agricultural Economics and Town and Country Planning. Much as we wished to present only those research projects which furnished all the required details, this was practically not feasible since a considerable number of institutions provided only partial information. Hence even such projects have been included.

The total number of reports received was 309 — more than double the number received in the previous year. (Here it must be noted that the figures for earlier years are inclusive of M.A./M.Sc. dissertations whereas in 1979 they have been excluded). The greatest number of research projects are in Economics (143). A wide gap is noticeable between the number of projects in Economics and the subject following it. Sociology, standing second, records 31 projects and Education 28. These are followed by Commerce and Business Management (23), Geography (22), Psychology (19) and Political Science and Public Administration (16). The number of projects reported in History and Social Work are fewer than in 1978.

The degree-wise classification of projects is as follows: 132 projects lead to Ph. D., 62 projects to M. Phil., 1 to M. Litt. and 1 to Diploma in Ag. B. M. While 110 projects are of a general nature and do not lead to a degree, the status of 3 projects is not clear.

Response from the four states was not uniform. From Karnataka only one of the three universities sent in the forms. The response from Kerala has also been poor. On the other hand, all the universities in Andhra and Tamil Nadu have shown interest in the Census. The major research institutes in the region have also cooperated in the project. Because of the uneven response from the states it will not be fair to make any inter-state comparisons, but Table 2 gives a detailed breakdown of entries from the four states and of the institutions that responded to the questionnaire. The Table shows also that research in Economics is widely distributed in the region and among the institutions, but research in Anthropology, Commerce and Business Management, Education, Geography and even Sociology is concentrated in a few centres.

The census has succeeded in identifying only a fraction of the research in the social sciences actually going on in South India. It is hoped that those who are engaged in research will recognise the importance of sharing their findings with the wider academic community.

The data have been classified first subject-wise, second university-wise and third institution-wise. In all these classifications the presentation is in alphabetical order. The title of each project is easily distinguishable as it appears in bold print; this is followed by details on objectives and methodology of the project, dates of commencement and termination and the degree to which the project leads. Absence of details on objectives and/or methodology indicate non-availability of data. The word NIL appearing against the item Degree indicates that the project does not lead to a degree. The sign'—'against any item indicates data non-availability. Again, the sign '—(ongoing)' or '—(in progress)' against the item Date of Termination indicates that the project is in progress and the date is not foreseen by the researchers themselves. The following abbreviations have been used : Obj : Objectives, Meth : Methodology, Com : Commencement, Ter : Termination and Deg : Degree.

TABLE 1

No.	Discipline	(covering only Tamil Nadu and including M.A. / M.Sc. dissertations)								(covering 4 Southern Universities and excluding M.A /M.Sc. dissertations)
		1971	1972	1973	1974	1975	1976	1977	1978	1979
1.	Anthropology	3	...	...	...	...	1	...	...	4
2.	Commerce & Business Management	...	...	5	2	1	2	11	10	23
3.	Economics	85(85)*	42(42)	125(174)*	51(74)	41(62)	33(58)	37(64)	33(60)	143**
	Agricultural Economics & Cooperation	...	...	49	22	18	22	23	27	...
	Demography	...	...	...	...	1	3	2	...	...
	Economic History	...	...	...	1	...	...	2	...	...
	Town & Country Planning	...	...	...	...	2	...	...	...	...
4.	Education	...	5	2	2	1	5	4	4	28
5.	Geography	...	...	1	4	6	12	9	1	22
6.	History	8	8	4	9	16	10	9	10	6
7.	Home Science	44	36	...	...	...	...	29	19	***
8.	Linguistics	...	...	56	...	...	1	...	...	...
9.	Philosophy	...	...	...	...	1	...	...	2	5
10.	Physical Education	...	...	...	...	...	1*	...	...	...
11.	Political Science & Public Administration	...	...	1	2	2	...	...	...	16

Contd.

12. Psychology	31(31)****	11(11)	14(16)****	12(14)	15(18)	15(18)	10(11)	11(11)	19*****
Criminology	...	...	2	2	3	3	1	...	...
13. Social Work	...	5	7	6	8	6	1	10	2
14. Sociology	7	4	2	6	2	6	3	6	31
15. Interdisciplinary	...	...	...	...	1	...	...	1	4
16. Others	...	4	2	...	...	...	2	2	6
Total	178	115	270	119	117	128	142	136	309

*Figures within bracket indicate total of all subjects under Economics

**Figure includes all subjects under Economics

***Home Science projects received in 1979 relate only to M.Sc. degree, hence they have been omitted (see introductory note)

****Figures within bracket indicate total of Psychology and Criminology

*****Psychology and Criminology have been included in one group

TABLE 2

State and University/ Institution	SUBJECT													
	Anthropology	Commerce & Business Management	Economics	Education	Geography	History	Philosophy	Political Science & Public Administration	Psychology	Social Work	Sociology	Inter-disciplinary Projects	Others	Total
I Andhra Pradesh														
1. Andhra University	4	7	2	...	...	...	...	...	7	...	...	...	...	20
2. Kakatiya University	...	...	3	...	...	...	...	2	...	...	...	...	...	5
3. Nagarjuna University	...	...	3	...	...	...	...	...	...	...	...	...	...	3
4. Osmania University	...	...	2	...	3	...	...	...	...	...	...	...	...	5
5. Sri Venkateswara University	...	1	16	...	...	...	...	...	...	...	...	...	...	17
6. National Institute of Rural Development	...	...	17	...	...	...	...	9	...	...	...	...	4	30
State Total	4	8	43	...	3	...	...	11	7	...	...	...	4	80
II Karnataka														
1. Karnatak University	...	...	1	...	...	...	5	5	...	...	...	...	1	12
2. Institute for Social & Economic Change	...	...	29	8	3	...	...	...	...	...	9	...	1	50
State Total	...	...	30	8	3	...	5	5	...	...	9	...	2	62

Contd.

III Kerala														
1. Calicut University	...	...	2	...	...	...	...	...	...	...	...	1	...	3
2. Kerala University	...	...	...	...	...	...	...	...	...	...	3	...	...	3
3. Centre for Development Studies	...	...	4	...	...	...	...	...	...	...	...	...	...	4
4. Indian Institute of Regional Development Studies	...	...	3	...	...	...	...	...	...	...	...	2	...	5
State Total	...	...	9	...	...	...	...	...	...	...	3	3	...	15
IV Tamil Nadu														
1. Annamalai University	...	15	21	...	...	6	...	...	4	...	...	...	...	46
2. Madras University	...	...	7	15	16	...	...	...	8	2	16	1	...	65
3. Madras University Autonomous P. Graduate Centre, Coimbatore	...	...	13	...	...	...	...	...	...	...	3	...	...	16
4. Madurai Kamaraj University	...	...	3	5	...	...	...	...	...	...	...	...	...	8
5. Tamil Nadu Agricultural University	...	...	7	...	...	...	...	...	...	...	...	...	...	7
6. Gandhigram Rural Institute	...	...	2	...	...	...	...	...	...	...	...	...	...	2
7. Institute for Techno-Economic Studies	...	...	5	...	...	...	...	...	...	...	...	...	...	5
8. Madras Institute of Development Studies	...	...	3	...	...	...	...	...	...	...	...	...	...	3
State Total	...	15	61	20	16	6	...	...	12	2	19	1	...	152
Grand Total	4	23	143	28	22	6	5	16	19	2	31	4	6	309

The report on social science research in *Southern universities is presented in the* following.

ANTHROPOLOGY

Andhra University, Waltair

1. Education and change among the scheduled tribes of Andhra Pradesh

Obj : (i) To review the present formal education structure in selected tribal areas to find out whether there is any conflict or continuity between formal and informal training, (ii) to understand the structural constraints hindering the progress of tribal education programmes

Meth : Interviews, schedules and field studies

Com : May, 1973

Ter : —

Deg : Ph. D.

2. Harijans and Harijan Christians —a study in social mobility and change

Obj : (i) To study the social position of Harijans and Harijan Christians of a town and village, (ii) to study the impact of Christianity, (iii) to analyse the kind and extent of social mobility possible for Harijans and Harijan *Christians, (iv) to* study social mobility in terms of four indices—occupational, educational, economic and cultural

Meth : (i) Selection of town on the basis *of the preponderant* number of Christians and of the village, on *the basis of its relative isolation* so as to study the traditional caste features, inter caste relations in so far as they are unaffected by the extraneous factors of change, (ii) participant observation, (iii) questionnaire technique

Com : June 1, 1972

Ter : December 27, 1978

Deg : Ph. D.

3. Problems of land alienation *among tribal societies*

Obj : To study (i) the causes of land alienation and its impact on tribal *economy, (ii) protective legislation* and the present situation in agency areas

Meth : (i) Selection of a few villages in the tribal areas, (ii) data collection through the ethno - genelogical technique, case studies, questionnaires and participant observation

Com : September, 1975

Ter : —

Deg : Ph. D.

4. Status of women in two tribal communities of Andhra Pradesh

Obj : Comparing the status of women among the Koyas and Chenchus of Andhra Pradesh

Meth : Schedules, informal interviews, case studies, collection of biographies

Com : 1976

Ter : 1978

Deg : Nil

COMMERCE AND BUSINESS MANAGEMENT

Andhra University, Waltair

5. Trends in transport with particular reference to Vishakapatnam district

Obj : *To review the trends and make* projections for selected transport indicators like passenger and goods traffic by road, rail and water, etc., of Vishakapatnam district

Meth : Secondary data collected from various government offices and projections made using the methods of trend determination, multiple regression and growth projections for 1980-81 under different growth rates of district income

Com : 1975

Ter : March, 1978

Deg : Ph. D.

6. Marketing of cotton : a case study of Guntur district

Obj : (i) To enquire into the reasons for the sudden and large scale shift in cultivation in Andhra Pradesh from tobacco to cotton, (ii) to evalute marketing costs and margins and assess the marketing needs

Meth : (i) Primary data collected from personal field investigations in the Guntur district, (ii) a stratified random sample of 376 farmers and 50 per cent of the ginners (numbering 46) in the Guntur district interviewed with the help of structured schedules, (iii) secondary data collected from the concerned goverment offices, data tabulation and computation done on IBM 1130

Com : 1975

Ter : March, 1979

Deg : Ph. D.

7. Indian marine product exports—prospects for product and market diversification

Obj : To analyse the trends in the marine product industry in the world and explore the prospects for product and market diversification in the context of the U. N. Sea Law on Exclusive Economic Zone

Meth : Data collected from FAO, OECD, Marine Product Export Development Authority, India and other government institutions and departments; exponential growth rates and regression analysis made with IBM 1130

Com : December, 1976

Ter : July, 1979

Deg : Ph. D.

8. Problems and prospects of cashew industry in Andhra Pradesh

Obj : (i) To study the gap between the demand and supply of raw material in Andhra Pradesh, (ii) to investigate into the problem of developing external resources of supply and assessing the possibility of improving supply of raw nuts indigenously, (iii) to make suggestions to appropriate agencies to develop this industry

Meth : (i) Primary data collected through schedules for growers and processing units on the basis of stratified random sampling, (ii) secon-

dary data obtained from different sources, institutions and agencies both in India and abroad engaged in the promotion of cashew industry

Com : 1977

Ter : March, 1980

Deg : Ph. D.

9. Financial management in Indian Railways, 1950-51 to 1976-77

Obj : (i) To study the relationship between revenue and cost behaviour, (ii) to establish historical production function and to identify the stage of production in Indian Railways, (iii) to study the incidence of social burden on Indian Railways and to recommend, by drawing instances from foreign countries, measures for minimising this cost

Meth : (i) Primary and secondary data collected from the Railway Board and other Zonal Railways, tabulation and computation done on IBM 1130, (ii) multiple regression analysis, quadratic and auto-regression analysis techniques used

Com : 1976

Ter : April, 1979

Deg : Ph. D.

10. Inventory management in heavy engineering industry : a case study of Bharat Heavy Plate and Vessels Ltd.

Obj : To study the impact of materials management on production and profitability

Meth : (i) Data collected from the records of BHPV and the Ministry of Heavy Industry, (ii) analysis of inventory control using modern techniques and comparison of performance with the norms of the Bureau of Public Enterprises

Com : 1976

Ter : January, 1980

Deg : Ph. D.

11. An appraisal of the working and evaluation of the impact of the government agencies on the tribals in the selected villages of Srikakulam

Obj : (i) To trace the historical, political and economic events that led to Girijan revolts in India with particular emphasis on the Naxalite Movement in Srikakulam district, Andhra Pradesh, (ii) to review the government's role in improving the economic and social conditions of the tribals, (iii) to appraise the working and evaluate the impact of the government agencies, (iv) to conduct a socio - economic survey of the tribals and tribal economy in Srikakulam District

Meth : (i) Census survey of tribals in 18 stratified sample villages with the help of structured schedules, (ii) secondary data collected from concerned government departments / agencies, analysis made with computer

Com : March, 1975

Ter : December, 1978

Deg : Ph. D.

Annamalai University, Annamalai Nagar

12. Working of Co-operative Spinning Mills Ltd. with special reference to *The Thanjavur District Co-operative* Spinning Mills Ltd., Manalmedu

Obj : To study the different aspects of the *Co-operative Spinning Mills* such as capital structure, cost structure, labour and machine productivity

Meth : Case study method; secondary data used for comparative study

Com : September 20, 1978

Ter : September 19, 1979

Deg : M. Phil.

13. Financial problems of cotton textile mills in Ramnad district

Obj : To find out the financial problems faced by the cotton textile mills in Ramnad district and to suggest solutions

Meth : Based on primary and secondary data, personal discussion with the financial experts of cotton textile mills

Com : September 14, 1978

Ter : September 13, 1979

Deg : M. Phil.

14. Urban co-operative banks in South Arcot district

Reported in Bulletin, 1978, Vol. VIII, Nos. 5 & 6, p. S. 18

15. Village adoption scheme in Chidambaram taluk

Obj : To study the working of village adoption scheme

Meth : Collection of secondary data from commercial banks and primary data from village people

Com : October, 1978

Ter : June, 1980

Deg : M. Phil.

16. Working capital management

Obj : To study the management of working capital

Meth : Secondary data, questionnaires and interviews

Com : September, 1978

Ter : September, 1979

Deg : M. Phil.

17. Land development banks in Thanjavur district

Obj : To study the various aspects of the land development banks such as their growth, organisation, management, finance, size and loaning operations

Meth : Sample survey

Com : September 20, 1978

Ter : September 19, 1979

Deg : M. Phil.

18. Urban transport of Tiruchirapalli

Reported in Bulletin, 1978, Vol. VIII, Nos. 5 & 6, p. S. 18

19. Regional Rural Banks — with particular reference to Tamil Nadu

Obj : To make a critical study of the working of the branches of the Regional Rural Bank in Tamil Nadu in the light of the objectives with which they were started

Meth : Secondary data collected through personal interviews, discussions with competent authorities

Com : October, 1978

Ter : September, 1979

Deg : M. Phil.

20. Agricultural Co-operative Credit Societies in the Union Territory of Pondicherry

Reported in Bulletin, 1978, Vol. VIII, Nos. 5 & 6, p. S. 18

21. Chintamani Supermarket — a case study

Obj : To study the working of the supermarket in terms of its performance

Meth : Secondary data, questionnaire and interview techniques

Com : September, 1978

Ter : August, 1979

Deg : M. Phil.

22. Fisheries industry in Pondicherry

Obj : To study the problems in the fishing industry

Meth : Questionnaire and interview techniques

Com : October 21, 1978

Ter : October 20, 1979

Deg : M. Phil.

23. Economics of transporting pilgrims to Palani hill temple

Obj : (i) To study the economic feasibility of the existing and proposed winch transport, (ii) to consider the possibilities of similar transport in all other hill temples in Tamil Nadu

Meth : Data collected from office records of the devasthanam, interview with concerned authorities, interview with pilgrims

Com : September 15, 1978

Ter : September 14, 1979

Deg : M. Phil.

24. Influence of accepted marketing practices on the products of rural industries

Obj : To identify the accepted marketing practices followed by the large scale industries and see how far they can be adopted with advantage in marketing the products of rural industries

Meth : Survey research method : primary data from consumers and rural industry units by questionnaire and personal interview methods

Com : November 1, 1978

Ter : October 31, 1981

Deg : Ph. D.

25. Development of entrepreneurship in Tamil Nadu

Reported in Bulletin, 1977, Vol. VII, Nos, 5 & 6, p. S. 17

26. A study on the problems of production and marketing of cardamom

Obj : To study the problems of production and marketing of cardamom and to suggest a suitable remedy to overcome those problems

Meth : Collection of primary data from growers, auctioners by questionnaire and interview methods

Com : May 23, 1978

Ter : May 22, 1981

Deg : Ph. D.

Sri Venkateswara University, Tirupati

Sri Venkateswara University College, Tirupati

27. Development of sericulture industry in Andhra Pradesh

Obj : To assess the potential of the industry

Meth : (i) Literature study, (ii) sample survey

Com : 1978

Ter : 1981 (approx.)

Deg : Ph. D.

ECONOMICS

Andhra University, Waltair

28. Cotton marketing systems in India with special reference to Guntur district

Obj : To find out (i) whether farmers utilise advantages of regulated markets, (ii) costs of marketing, (iii) whether farmers shifted from cotton cultivation to tobacco or other crops owing to difficulties in marketing, prices, etc.

Meth : (i) Survey of 100 households in Guntur and Narasarao taluks selecting from each taluk 10 villages and from each village, 10 cotton growing cultivators for farm level studies, (ii) study of regulated markets in Guntur

Com : October 1, 1977

Ter : January, 1978 (report to be finalised)

Deg : Nil

29. Peasant organisation in India

Obj : (i) To ascertain the agro-social bases of peasant movements and organisation in Andhra Pradesh, (ii) to determine the interaction between agrarian legislation and peasant movements and organisations in the State

Meth : Literature and field survey for data on origin and growth of peasant movements and organisation

Com : May 19, 1977

Ter : — (ongoing)

Deg : Nil

Annamalai University, Annamalai Nagar

30. Land utilisation and cropping pattern in selected districts of Tamil Nadu during the last 10 years

Com : 1978

Ter : 1979

Deg : M. Phil.

31. A study of rural poverty and unemployment with special reference to a typical village of Thanjavur district, viz. Valakkurai

Com : 1978

Ter : 1979

Deg : M. Phil.

32. A study of the level of wages and employment of agricultural workers in Mayuram Block, Thanjavur district

Com : 1978

Ter : 1979

Deg : M. Phil.

33. A case study of consumption and saving pattern of traders at Virudhunagar

Com : 1978

Ter : 1979

Deg : M. Phil.

34. Industrial relations in public sector undertaking : Neyveli Lignite Corporation

Com : 1978

Ter : 1979

Deg : M. Phil.

35. A case study of oil production and marketing at Melanikuly, Trichy distric

Com : 1978

Ter : 1979

Deg : M. Phil.

36. A study of the working of the primary co-operative societies in Mayuram block

Com : 1978

Ter : 1979

Deg : M. Phil.

37. Working of nationalised bank in financing agriculture with particular reference to Indian Bank at Villupuram

Com : 1978

Ter : 1979

Deg : M. Phil.

38. Municipal finance : a case study of Tiruchirapalli Municipality

Com : 1978

Ter : 1979

Deg : M. Phil.

39. Working of small scale industries in Pudukottai town

Com : 1978

Ter : 1979

Deg : M. Phil.

40. Economics of salt manufacturing industry at Adiramapattinam

Com : 1978

Ter : 1979

Deg : M. Phil.

41. Knowledge, attitude and practice of fertility and family planning among Harijans of Tamil Nadu—a case study of Harijans of K. Adoor village, Chidambaram taluk

Com : 1978

Ter : 1979

Deg : M. Phil.

42. Productivity aspects of Neyveli Lignite Corporation

Com : 1978

Ter : 1979

Deg : M. Phil.

43. The electronics industry in Tamil Nadu : its organisation and development

Com : 1979

Ter : 1980

Deg : M. Phil

44. Working of Centre-State financial relations under Republican Constitution of India

Obj : To evaluate the working of the resource transfer mechanism and its impact on the development of the states

Com : 1972

Ter : 1978

Deg : Ph. D.

45. Allocation of State finances to the districts and their effects on socio economic development

Obj : To make a study of the government expenditures on the districts since independence and the development of the districts

Meth : Based on data collected from the concerned offices / departments

Com : July 15, 1978

Ter : 1981

Deg : Ph. D.

46. Role of Cooperatives in rural economy in Tamil Nadu with special reference to agricultural marketing

Obj : To study how agricultural marketing helps the rural people

Meth : Collection of data from concerned offices / departments ; sample survey of rural people benefiting from these cooperatives

Com : April 3, 1979

Ter : 1982

Deg : Ph. D.

47. Rural industrialisation in Tamil Nadu (with special reference to agro based industries)

Obj : To find out whether the money spent on rural development is benefiting those for whom it is meant

Meth : Sample survey of agro based industries, eg. sugar industry

Com : March 16, 1979

Ter : March 16, 1981

Deg : Ph. D.

48. Income, saving and the pattern of investment in the rural sector

Meth : Survey of Thanjavur District, Tamil Nadu

Com : January 17, 1978

Ter : January 17, 1980

Deg : Ph. D.

49. Incidence of agricultural taxation in Tamil Nadu

Reported in the Bulletin 1978, Vol. VIII, Nos. 5 & 6, p. S. 6

50. The role of khadi and village industries in promoting the rural economy of Tamil Nadu

Obj : To study (i) how far the khadi and village industries have achieved their aim of creating employment opportunities for the unemployed and underemployed rural masses, (ii) the problem of marketing the products of khadi and village industries, (iii) the techniques of production and their impact on productivity and employment

Meth : Survey using samples of population engaged in production, sales and consumption of khadi and village industries products

Com : March 3, 1979

Ter : —

Deg : Ph. D.

Calicut University, Trichur

51. Inter-state shifting of industries : a study of Kerala

Obj : To empirically verify the generally advanced hypothesis that the high cost of labour in Kerala causes shifting of industries from Kerala

to neighbouring states; examination of factors affecting entrepreneurial ability

Meth : (i) Through correspondence and with help of informed agencies/individuals, identify the manufacturing firms started by Kerala in Karnataka and Tamil Nadu during the last 20 years, (ii) survey of industries which have come into Kerala from other states in the last 10 years, (iii) study of cost structure and productivity of these units through questionnaires

Com : May 1, 1978

Ter : September 1, 1979

Deg : Nil

52. The structure of Kerala's economy, 1975 — a study in regional input-output analysis

Obj : Construction of regional input-output table for the Kerala economy within a framework of regional social accounts

Meth : Data from secondary sources collected, processed and analysed using product approach; primary data collected to supplement secondary data where necessary, on sample basis

Com : April 15, 1978

Ter : October 15, 1978

Deg : Nil

Kakatiya University, Warangal

53. Impact of rural electrification on small farmer economy in the districts of Andhra Pradesh

Obj : (i) To examine whether (a) small farmers are slow to adopt electricity in comparison with big farmers, (b) they are able to reap the same benefits as big farmers or whether any size disadvantage exists, (ii) to study the impact of electrification or productivity, cropping pattern, cultivation, employment, credit etc.

Meth : Taluk level studies through sample surveys of villages (10%) and 320 farms of big and small adopters and big and small non-adopters, inter-farm comparisons

Com : 1973

Ter : —

Deg : Ph. D.

54. An approach to the development of small farmer economy — a case study of Nackalpalli Village in Warangal district in Andhra Pradesh

Obj : (i) Resource inventory of the village, (ii) to indentify potential viable famers, (iii) to study the feasibility of activity mix like dairy and poultry due to proximity of the village to the city, (iv) to examine the hypothesis that "high wage rate in urban areas have caused neglect of farms in the village"

Meth : Village survey through use of schedules (a viable farm being defined as one that yields Rs. 2,265 farm business income)

Com : January, 1977

Ter : September, 1978

Deg : Nil

55. Formulation of a development plan for a village — a case study of Kanaichalam village

Obj : (i) To quantify village development potential — land, labour and

structural, (ii) to find means through which desired changes can be introduced, (iii) to identify potentially viable farmers on the basis of standard of living, (iv) in terms of the implications of the above, work out a regional policy

Meth : Two year survey of all village households, classifying farmers as big, small and marginal on the basis of holdings

Com : March, 1978

Ter : August, 1979

Deg : Nil

Karnatak University, Dharwad

56. Poverty in Karnataka: a case study of Bidar district

Obj : (i) To assess the district's economy, (ii) to assess magnitude of poverty in terms of per capita income (disposable) and per capita expenditure (on food and non-food items), (iii) to appraise existing policy programmes and evolve alternative policy programmes

Meth : Phase I: collection of basic information on the basis of available secondary data at the districts and taluks; phase II : two stage sampling method, stage I involving selection of villages on the basis of population and irrigation level and selection of urban centres on the basis of population, and stage II involving selection of 10% of the households at random in rural areas and selection of 1% of households at random in urban areas

Com : 1974

Ter : June, 1979

Deg : Nil

Madras University: Autonomous Post Graduate Centre, Coimbatore

57. Impact of bank nationalisation on agricultural growth in the Tiruchirapalli district

Obj : To assess the impact of bank nationalisation on agricultural growth in Tiruchirapalli district

Com : April 1, 1975

Ter : April 1, 1978

Deg : M. Litt.

58. Growth of employment for manpower in the engineering industry of Coimbatore industrial agglomeration during 1963-1978

Obj : (i) To estimate the growth of employment for different categories of manpower in the engineering industry of Coimbatore industrial agglomeration during 1963-1978, (ii) to test the hypothesis " employment is a function of output "

Meth : (i) Selection of units of study by applying the 'Stratified Random Sampling Technique', (ii) a statistical model for forecasting manpower demand to be incorporated

Com : July, 1978

Ter : May, 1982

Deg : Ph. D.

59. A study of growth and diversification patterns with particular reference to Coimbatore engineering firms

Obj : To examine the behaviour of a firm through time and measure the extent to which product and market diversification influence the growth process of a firm

Meth : A cross-section of small, medium and large engineering firms which are at least 5 years old and located in Coimbatore district selected for detailed investigation and appropriate statistical tools utilised

Com : April 1, 1973

Ter : December, 1978

Deg : Ph. D.

60. A study of the borrowings of the scheduled commercial banks from the RBI under the operation of the NLR system

Obj : To analyse the borrowings of the Indian scheduled commercial banks from the RBI in the context of a system of regulation of access rights, i.e. during the operation of NLR during 1964-1975

Meth : (i) Study based on secondary data published by RBI periodically, (ii) appropriate quantitative techniques employed for analysis

Com : April 1, 1973

Ter : March 26, 1979

Deg : Ph. D.

61. A study of the effects of population growth on income, investment and consumption in India during 1951-71

Obj : To measure the effects of population growth on income, investment and consumption in India during 1951-71

Meth : Use of appropriate statistical tools

Com : August 1, 1974

Ter : March, 1979

Deg : Ph. D.

62. Economics of powerloom weaving complex in Salem district with particular reference to Komarapalayam — 1977

Obj : To study (i) the growth, structure and development of powerloom industry in Salem district, (ii) impact of government policy on the performance of the powerloom sector in Salem District

Com : June 1, 1976

Ter : June 1, 1980

Deg : Ph. D.

63. Municipal Finances in Tamil Nadu (1946-1970)

Obj : To study the structure and growth of municipal finances during 1946 to 1970 in Tamil Nadu

Com : August 1, 1975

Ter : August 1, 1979

Deg : Ph. D.

64. Leather industry — export perspective study

Obj : (i) To understand the place of Indian leather industry in the context of world leather trade, (ii) assessing the performance of the industry in the context of the country's terms of trade and balance of payments

Com : April 1, 1977

Ter : April 1, 1981

Deg : Ph. D.

65. A study of the impact of Urban Land Tax on the development of the Madras Metropolitan Area

Obj ; (i) To study the relationship between a) urban growth and economic development and

b) coordinated economic planning and urban development, (ii) special reference paid to the *urban land tax in the development* of the Madras Metropolitan Area

Com : October 1, 1975

Ter : October 1, 1979

Deg : Ph. D.

66. Agrarian history of USSR with special reference to the collective farms

Obj : To study the growth and development of collective farms in the economy of USSR

Com : February 1, 1978

Ter : February 1, 1982

Deg : Ph. D.

67. Agricultural taxation and economic growth

Com : April 1, 1975

Ter : April 1, 1979

Deg : Ph. D.

68. Human capital and economic growth

Com : August 1, 1975

Ter : August 1, 1979

Deg : Ph. D.

69. Municipal finance in Andhra Pradesh : a case study of some selected municipalities in Andhra Region

Obj : To study the structure and trends in the finances of selected municipalities in the Andhra Region of Andhra Pradesh

Meth : (i) Municipalities selected on the basis of stratified random sample, (ii) primary and secondary data used for the study, (iii) size of the sample : 25 per cent; altogether ten municipalities selected *for the study*

Com : September, 1977

Ter : September, 1979 (likely to be extended)

Deg : Nil

Madras University, Madras

70. Capacity utilization in cotton textile industry

Obj : To examine alternative measures of capacity utilization and estimate potential output

Com : August, 1978

Ter : —

Deg : M. Phil.

71. Productivity in Indian cotton textile industry

Obj : To measure productivity by various methods

Meth : Use of partial and total factor productivity measures, correlation and regression analysis

Com : January 1, 1978

Ter : June 15, 1978

Deg : M. Phil.

72. Demand functions for electricity

Obj : To estimate demand functions for electricity for residential, agricultural, industrial and other uses

Com : October, 1978

Ter : —

Deg : M. Phil.

73: Economic viability of coir industry in Thanjavur district

Meth : Sample Survey of units; correlation and regression analysis

Com : January 1, 1978

Ter : June 15, 1978

Deg : M. Phil.

74. Cost-benefit analysis of low-income housing in Madras city

Meth : Cost-benefit analysis

Com : 1976

Ter : —

Deg : Ph. D.

75. Price formation in Indian manufacturing industries

Meth : Econometric studies leading to price equations

Com : January, 1979

Ter : —

Deg : Ph. D.

76. Multipart tariff and demand relations

Obj : (i) To specify demand relations for goods sold on the basis of multi-part or declining block schedule method of pricing, (ii) to examine the consequences of non-convexities and non-lineants for estimation of income and price elasticities

Com : October, 1978

Ter : —

Deg : Nil

Madurai Kamaraj University, Madurai

77. Economics of marine fishing industry in Nagapattinam in Thanjavur district

Com : July, 1978

Ter : —

Deg : —

78. Trade union movement in cotton textile industry in Madurai district

Com : July, 1978

Ter : —

Deg : —

79. The handloom industry in Madurai city and its potential development

Com : January 4, 1978

Ter : March 31, 1979

Deg : —

Nagarjuna University, Nagarjuna Nagar

80. Some aspects of nationalization of commercial banks in India

Obj : To study the performance of commercial banks in relation to objectives of nationalization

Meth : (i) Collection of primary data from commercial banks in Guntur and Vijayawada, medium and small scale industries, (ii) analysis of data by giving scores and building up indices to show the level of activity achieved, e. g., information on intensity of attitudes and attributes of banks, industries and individuals; the

score for clusters based on correlation between the attributes across the object

Com : 1973

Ter : —

Deg : Ph. D.

81. Evaluation of expenditures of Gram-Panchayats in Andhra Pradesh

Meth : Use of primary data

Com : January, 1977

Ter : —

Deg : Ph. D.

82. Commercial capital and agrarian relations - a case study of tobacco cultivation and trade in Guntur

Obj : (i) To analyse the process of capitalist development focussing on the role of commercial capital in this process, (ii) commercial cultivation of tobacco and its trade in Guntur taken as a case study

Meth : Use of historical data as well as primary data collected through field survey; historical method of analysis

Com : December, 1975

Ter : — (ongoing)

Deg : Ph. D.

Osmania University, University College of Arts, Hyderabad

83. Pattern of unemployment in rural Telangana

Obj : To estimate the pattern and magnitude of unemployment and under-employment with special reference to certain selected rural areas of Telangana region

Meth : (i) Collection of information about the time disposition of the entire work force (agricultural and non-agricultural) among different types of employment, such as wage employment, self-employment and employment in family enterprises from six villages in Nalgonda district; the six villages selected represented the entire rural background of Telangana region, (ii) data collected in 12 monthly rounds covering all the households of the six selected villages, (iii) data analysed in terms of the pattern and magnitude of employment, unemployment and under-employment position

Com : January, 1978

Ter : December, 1979

Deg : Nil

84. Evaluation study of Small Farmers' Development Agency (SFDA) in Medak district of Andhra Pradesh

Obj : (i) To evaluate : a) whether identification of beneficiaries has been properly done, b) whether 'demonstration plots' have led to tangible results by way of changes in cropping pattern, (ii) to assess the extent of economic benefits in the form of additional income and employment generated by the different programmes with subsidies like animal husbandry, minor irrigation, land improvement and soil conservation, (iii) to find out the awareness of SFDA programmes among the beneficiaries and non-beneficiaries, (iv) to understand the pattern and performance of recovery of loans from the beneficiaries

Meth : (i) Two-stage stratified random sampling method adopted in the selection of sample of beneficiaries: (1) selection of sample villages and (2) selection of beneficiaries from the sampled villages, (ii) circular systematic sampling procedure adopted in selecting the villages from bigger Blocks and simple random sampling procedure adopted in selecting villages from smaller Blocks (in all about 7% of the SFDA beneficiaries in the district selected for investigation)

Com : March, 1978

Ter : March, 1979

Deg : Nil

Sri Venkateswara University, Tirupati

85. The functioning of the public sector enterprise in India

Obj : To evaluate the working of the public sector enterprises in India

Meth : Case studies of Central Government public enterprises

Com : 1976

Ter : 1978

Deg : M. Phil.

86. Pricing policies in public enterprises

Obj : To examine the pricing policies followed by the public enterprises

Meth : Case studies of Central Government public sector enterprises

Com : 1978

Ter : —

Deg : Ph. D.

87. Union-State debt relations in India

Obj : To study (i) the growth, composition and utilisation pattern of central loans to the states (during 1955/56—1977/78), (ii) the role of central loans in reducing regional disparities, (iii) the place of debt adjustment technique in fiscal federalism in India

Com : January, 1976

Ter : July, 1980

Deg : Ph. D.

88. Bank finance to small scale industries in Chittoor district

Obj : (i) To analyse the major problems of development of small scale industries, (ii) to examine the finance provided by the banks to small scale industries in Andhra Pradesh and Chittoor districts, (iii) to review the financial assistance of banks in Chittoor district, (iv) to analyse the changing role and the development of small scale industries in Chittoor district and (v) to suggest policy measures to develop these industries

Meth : Case study

Com : July 1, 1978

Ter : July 1, 1981

Deg : Ph. D.

89. Tax effort of states during the plan period

Obj : To study the tax effort made by states during the plans with particular reference to Andhra Pradesh and comparing it with the value in other states

Meth : Formulating a model to calculate tax effort based on regression techniques

Com : January, 1977

Ter : January, 1981

Deg : Ph. D.

90. Trade union movement in Indian railways

Com : 1968

Ter : 1978

Deg : Ph. D.

91. Farm production credit and cooperation in an IADP district

Com : 1968

Ter : 1979

Deg : Ph. D.

92. Evaluation of SFDA and DPAP in Cuddapah district

Obj : To evaluate the working of the Small Farmer Development Agency and Drought Prone Areas Programmes in Cuddapah district

Meth : (i) Field study of selected households, (ii) assessment from the periodical reports of the project administration

Com : 1977

Ter : 1978

Deg : Nil

93. Evaluation of Drought Prone Areas Programmes in Chittoor (A. P.)

Obj : To evaluate the working of the Drought Prone Areas Programmes in Chittoor district (Andhra Pradesh)

Meth : (i) Field study of selected households, ii) assessment from the periodical reports of the project administration

Com : December, 1978

Ter : May, 1979

Deg : Nil

94. Agricultural growth and instability in Andhra Pradesh

Obj : To find out (i) the growth and instability of agricultural production in Andhra Pradesh, (ii) the relative share of different inputs in agricultural production growth rates (i. e. the share of irrigation, HYV, fertilizers etc)

Meth : Statistical methods adopted for analysis

Com : 1979

Ter : 1983

Deg : UGC Junior Research Fellowship

Sri Venkateswara University College, Tirupati

95. Agricultural development in Andhra Pradesh

Obj : To study the growth rates of agricultural production and productivity vis-a-vis population growth rates

Meth : (i) Use of secondary data, (ii) linear growth rates, coefficient of variation, correlation coefficient, regression functions and range of dispersion techniques used

Com : 1977

Ter : 1978

Deg : M. Phil.

96. The growth of developmental expenditure in Andhra Pradesh

Com : 1977

Ter : 1979

Deg : M. Phil.

97. State income of Andhra Pradesh: an analysis of growth and structure

Com : 1977

Ter : 1978

Deg : M. Phil.

98. A study of famines in Andhra Pradesh

Com : 1977

Ter : 1978

Deg : M. Phil.

99. Employment of Harijan agricultural labour in Chittoor district

Com : 1977

Ter : 1978

Deg : M. Phil.

100. Labour conditions in municipalities of Andhra Pradesh

Com : —

Ter : 1978

Deg : Ph. D.

Tamil Nadu Agricultural University, Coimbatore

101. Study of market structure and marketing of hybrid seeds in Coimbatore region

Obj : (i) To study the existing market structure for hybrid seeds, (ii) to project the demand for and the supply of hybrid seeds, (iii) to identify the problems in production and processing of hybr'd seeds

Meth : Random survey and interview of seed producers in Coimbatore district

Com : 1976

Ter : 1978

Deg : Dip. Ag. B.M.

102. Operational research for grass root level planning - a model for Nallampalli block, Dharmapuri district

Obj : To prepare a workable development plan for Nallampalli block and identify strategies for reduction in inequality in income distribution, elimination of poverty, reduction in unemployment and growth in per capita real income

Meth : (i) Design of a development model with two suboptimizing models — one for agricultural and the other for non-agricultural enterprises and an aggregate model providing for linkage, (ii) sample of 100 households and 100 farm producers selected at random and interviewed

Com : February, 1977

Ter : April, 1979

Deg : Ph. D.

103. A system simulation approach for an economic appraisal of agricultural development in Tamil Nadu

Obj : (i) To specify and estimate a model to describe the changes in output and productivity over the period 1961-62 for a select region, (ii) to estimate the *composite* impact on farm sector labour utilization and demand for labour

Meth : (i) Random survey of farms in Polur Block of North Arcot district, (ii) use of secondary data, (iii) a recursive programming model fitted to simulate the farm economy

Com : September, 1977

Ter : June, 1979

Deg : Ph. D.

104. An analysis of supply-price relationship of rice in Tamil Nadu : micro-macro approach

Obj : (i) To describe the structure and movement of rice prices from 1950 -1975, (ii) to conceptualise and estimate the nature of supply response for major rice growing districts of Tamil Nadu at micro and macro level

Meth : Study taken up in 5 districts in Tamil Nadu, data on production, price, yield of rice and other substitute crops collected for 25 years and analysed

Com : August, 1977

Ter : June, 1979

Deg : Ph. D.

105. Demand for fertilizer at the farm level in Tamil Nadu

Obj : (i) To identify and estimate the farm demand functions for fertilizers, (ii) to evaluate the effects of selected economic, physical and behavioural variables on the demand for fertilizers at the farm level, (iii) to test for the stability of the estimated demand function parameters, (iv) to evaluate the policy implications of the estimated demand structure

Meth : Using relevant data, rice production function fitted and fertilizer demand equation derived from it

Com : February, 1977

Ter : August, 1979

Deg : Ph. D.

106. Farm labour - use pattern and employment potential in Coimbatore district - programming approach

Obj : i) To study the pattern, level and efficiency of labour use, ii) to estimate the potentials for employment generation in the farming sector, iii) to identify the major constraints in employment generation and suggest ways and means of reducing the constraints

Meth : Random survey of 15 villages in the district; 5 size groups delineated; sample farms regrouped into dry, gardenland and canal farms and seven average farming situations identified ; programmes run separately for employment and income maximisation and evaluated

Com : November, 1975

Ter : September, 1978

Deg : Ph. D.

107. Study on the estimation of cost of production of coffee

Obj : i) To estimate the cost structure in coffee production at green coffee stage, ii) to develop appropriate investment models for coffee production industry, iii) to evaluate the regional and scale effects in costs and returns in coffee production

Meth : Study confined to Karnataka, Tamil Nadu and Kerala ; 247 planters contacted and information collected for 15 years from 1959-60 to 1973-74 ; estates post-stratified into four size groups and cost structure analysed

Com : August, 1974

Ter : September, 1978

Deg : Ph. D.

Other Institutions

Centre for Development Studies, Trivandrum

108. Cashew development in India: potentialities and constraints

Obj : To examine the problems and constraints in the development of the cashew industry in India — demand for and supply of cashew kernels and raw cashewnuts, employment and income of workers in the industry, cashew cultivation, processing, marketing and trade, policy guidelines for cashew cultivation, etc.

Meth : Analysis based on data from primary and secondary sources

Com : 1975-76

Ter : 1978

Deg : Nil

109. Economic profile of working women in Kerala

Obj : To study (i) the nature of job participation of women in selected occupations, (ii) wage patterns, (iii) contribution to household finance within the framework of day to day intra-family and inter-family relations

Meth : Case study method supplemented by some marco-study to provide the background of work participation of women in the State of Kerala

Com : 1976-77

Ter : — (ongoing)

Deg : Nil

110. The impact of Fisheries Development Project on women immediately affected

Obj : To study principally the impact of the specific development project on the magnitude and nature of work participation by women of households directly affected by the Project

Meth : (i) On the basis of random sample 100 households in 3 villages in Quilon selected and surveyed, (ii) ten households of working women selected for case studies

Com : 1977-78

Ter : — (ongoing)

Deg : Nil

111. Socio-economic factors affecting the adoption of HYV of rice : a comparative study of Palghat and Kuttanad

Obj : To examine the various socio-economic factors underlying the adoption of high yielding varieties of rice in selected regions of the state

Meth : Data on the variety of seeds used in the different crop seasons collected along with all socio-economic variables such as size of the holding, tenancy, etc ; data processed and put to satistical analysis

Com : 1975-76

Ter : —(ongoing)

Deg : Nil

The Gandhigram Rural Institute, Gandhigram

112. Subsistence of agricultural labour and its fluctuation in Achampatty complex of villages in Madurai district

Obj : (i) To estimate the total labour force (landless agricultural labour) in a most economically backward rural area, (ii) to find out how the landless agricultural labourers live during off-seasons and to measure the extent of entry into and withdrawal from the labour force, (iii) to find out the socio-economic characteristics of the landless agricultural labour force

Meth : (i) Study covers 15 villages in the Dindigul and Reddiar Chatram community development blocks, (ii) data collection in 3 phases covering all the agricultural labourers and owner cultivators

Com : August, 1978

Ter : February, 1981

Deg : Nil

113. Locating effective criteria in credit utilisation - a case study in optimization

Obj : To analyse and compare the existing criteria of rural banking with those of a co-operative society with a view to formulating a new set of criteria for optimal utilisation of credit

Meth : (i) Study covers two districts — one bank (branch) selected randomly and credit criteria of that branch studied, (ii) correlation and regression analysis, linear programming technique adopted to formulate a new set of credit criteria for the optimal utilisation of credit

Com : —

Ter : 1981

Deg : Nil

Indian Institute for Regional Development Studies, Kottayam

114. Content of economics courses at BA level of the university of Kerala

Obj : To unearth the hidden curricula, the social content, the pressures and responses, relevance to Indian problems and to see if changes and innovations in teaching and learning Economics are noticeable for the last three decades in step with major changes in socio-political thinking of post-Independence India

Meth : (i) Scrutiny of text books, lecture notes, class room method, examination questions and study aids, (ii) interview with students and lecturers and those concerned with syllabus prescription

Com : March 1, 1979

Ter : — (ongoing)

Deg : Nil

115. Export pricing

Obj : (i) To analyse export pricing policies and strategies followed by Indian export firms, (ii) application of diffeient principles of costing such as average cost principle, marginal cost principle etc. as applied to different export companies in their day-to-day export marketing operations

Meth : Case study method

Com : December 16, 1976

Ter : December 15, 1978

Deg : Nil

116. Rural electrification and its impact on rural industrialisation of Kerala

Obj : (i) To survey the decentralised rural industries in REC scheme areas in selected districts, (ii) to make a special study of mini industries (ME) as many have been established under the REC loan programme, (iii) to assess the potential for industrialisation created by rural electrification, (iv) to make specific recommendations for solving the problems of industrial units and for accelerating rural electrification with special reference to rural industrialisation and employment

Meth : Census survey of all rural industrial units including mini-industries in the REC scheme areas using detailed questionnaires; secondary information collected for making estimates regarding future trends in load

Com : July 1, 1977

Ter : September 30, 1978

Deg : Nil

Institute for Social and Economic Change, Bangalore

117. Population redistribution and economic growth in Karnataka 1951-71

Obj : (i) To examine the interrelationship between migration and economic development in Karnataka during 1951-71 viewed as a response to the growth of various economic sectors at district level as well as the state, (ii) to identify the districts according to the levels of economic and demographic changes; (iii) to study the extent and manner in which population distribution influences economic development

Com : 1973

Ter : 1977

Deg : Ph. D.

118. Fertility performance of working women in Trivandrum district : a case study

Obj : To examine (i) differential fertility among working and non-working women, (ii) the interrelationship between fertility and female work participation

Com : 1973

Ter : 1978

Deg : Ph. D.

119. Foodgrains production, buffer stocks and price stabilisation with respect to Karnataka State and India

Obj : (i) To identify the nature of intra-seasonal and inter-seasonal variations in foodgrain prices in Karnataka, (ii) to estimate stock requirements for achieving price stability given production levels

Com : 1973

Ter : —

Deg : Ph. D.

120. Farm size, production and marketable surplus : a case study of Thanjavur district farmers

Obj ; To examine (i) the rate of growth of agriculture over the years, isolating factors responsible for the observed variation, (ii) the relationship between farm size, total production and marketable surplus

Com : 1975

Ter : —

Deg : Ph. D.

121. Economics of tapioca crops in Kerala

Obj : To study (i) the economics of cultivation of tapioca among different strata of farms and regions, (ii) the economics of processing and marketing the crop at the farm level, (iii) employment potential of the crop

Meth : Sample survey

Com : 1975

Ter : —

Deg : Ph. D.

122. Economics of arecanut production in Karnataka

Obj : To study (i) the economics of arecanut cultivation and processing at the farm level in Karnataka, (ii) the marketing behaviour of farmers, (iii) inter-regional and intra-regional differences across size classes in income, cost of cultivation and employment, (iv) trends in area, production and prices of arecanut

Meth : Sample survey

Com : 1976

Ter : —

Deg : Ph. D.

123. Institutional credit for changing agriculture - a case study of Nepal

Obj : To assess the role played by institutional agencies particularly cooperative societies in providing credit to farmers, (ii) to relate the role of institutional credit to the demand for credit in the agricultural context in Nepal

Meth : Study of credit institutions; field investigation of participant and non-participant farmers

Com : 1976

Ter : —

Deg : Ph. D.

124. Production conditions in the rice economy : case studies of Tamil Nadu and Assam

Obj : (i) To examine the factors determining cropping intensity (tenancy, uncertainty, farm size, public and private irrigation) and inputs into rice, (ii) to study the relationship between inputs and and cropping intensity, (iii) to identify the interaction between all variables mentioned

Com : 1977

Ter : —

Deg : Ph. D.

125. Protection and industrial growth

Obj : To evaluate the effect of production on the growth and viability of a group of industries linked with each other in the forward and backward directions within a specified period

Com : 1977

Ter : —

Deg : Ph. D.

126. Agricultural development in Mandya district : a study of technological change and resource use, 1961-62 to 1973-74

Obj : (i) To understand the contribution of technological change and resource use to agricultural development in Mandya, (ii) to

study the impact of changes in irrigation and chemical fertilisers (the two main components of technological change in Mandya's agriculture) on resource use

Com : 1974

Ter : —

Deg : Ph. D.

127. India's exports since 1960

Com : 1974

Ter : —

Deg : Ph. D.

128. An enquiry into the economics of handloom industry in Cannanore district (Kerala)

Com : 1975

Ter : —

Deg : Ph. D.

129. Socio-economic survey of drought-prone areas in Karnataka, Andhra Pradesh and Tamil Nadu

Com : June-July, 1978

Ter : July, 1980

Deg : Nil

130. Yield uncertainty in Karnataka agriculture

Com : —

Ter : —

Deg : Nil

131. Dairy development and its impact on rural development

Com : November, 1976

Ter : —

Deg : Nil

132. Rural man-power in the context of rural growth and rural decline - a case study of select villages

Com : November, 1976

Ter : 1978

Deg : Nil

133. An econometric analysis of funds flow - a case study

Com : July, 1977

Ter : —

Deg : Nil

134. Workers' participation in management

Com : October, 1976

Ter : —

Deg : Nil

135. Inequalities of income and poverty in Karnataka

Com : November, 1977

Ter : April, 1979

Deg : Nil

136. Evaluation of health and family planning welfare

Com : January, 1978

Ter : —

Deg : Nil

137. A survey of sex differentials in mortality and availability of medical facilities

Com : October, 1977

Ter : —

Deg : Nil

138. SRS birth rates and family planning acceptance in Karnataka

Com : April, 1976

Ter : —

Deg : Nil

139. Cost-benefit analysis of family planning in Karnataka

Com : December, 1975

Ter : —

Deg : Nil

140. Use effectiveness of IUD

Com : February, 1977

Ter : —

Deg : Nil

141. Agricultural development in Karnataka - Phase II

Com : January, 1978

Ter : —

Deg : Nil

142. Supply - demand estimation and short term projections

Com : —

Ter : —

Deg : Nil

143. Changes in cropping pattern during the last four 5 - year plans in Karnataka

Com : March, 1978

Ter : 1978

Deg : Nil

144. Social groups and levels of living

Com : March, 1978

Ter : October, 1978

Deg : Nil

145. Study of cropping pattern changes in Andhra Pradesh during 1950-75

Com : 1974

Ter : July, 1978

Deg : Nil

Institute for Techno-Economic Studies, Madras

146. Mechanisation in agricultur and labour substitution in Tamil Nadu

Obj : (i) To estimate the extent of net labour substitution resulting from mechanisation of agriculture, (ii) to examine employment and underemployment among agricultural workers, (iii) to work out the cost of production of main crops per quintal and per hectare for those using tractors and those following traditional methods

Meth : (i) Preliminary survey of all tractor owners in selected districts, categorising them by 5 holding sizes, (ii) selection of sample tractor owners in each stratum by circular random sampling method in each district, (iii) similar set of tractor hirers and an equal number of non-tractor farmers studied, (iv) during a full year, information collected on costs of cultivation and extent of labour use for paddy, groundnut, sugarcane and cotton

Com : January 2, 1976

Ter : January 31, 1978

Deg : Nil

147. Study of indebtedness of Scheduled Tribes in Tamil Nadu

Reported in Bulletin, 1977, Vol. VII, Nos. 5 & 6, p. S. 5

148. Study of marketing facilities in tribal areas of Tamil Nadu

Reported in Bulletin, 1977, Vol. VII, Nos. 5 & 6, p. S. 5

149. Study of the cooperative credit agencies in drought prone districts of Dharmapuri and Ramanathapuram in Tamil Nadu

Obj : To study (i) the special features of the drought prone areas that have direct relevance to repayment procedures of loans by farmers to Agricultural Credit Societies, (ii) how far these special problems could be solved

Meth : Sample of 10% of the cooperative credit societies in the two districts taken for indepth investigation of the credit system, obtaining, in each of these credit societies, a 10% random sample of agriculturist members — sample split into 7½% agriculturist borrowing members and 2½% agriculturist non-borrowing members as controls, (ii) questionnaires drawn up and replies canvassed, (iii) opinion survey schedules drawn up and answers elicited from 50 knowledgeable persons, 20 in each of the two districts and 10 in the state capital by the use of Delphi technique

Com : January 1, 1978

Ter : — (ongoing)

Deg : Nil

150. Employment potential of housing 1978-2000 A. D. - an exercise in futurology

Obj : (i) To decide on a preferred future from among alternative futures, and prepare a scenario for the year 2000 A. D. in the housing sector, (ii) to estimate the building capacity of the construction industry to supply high priority construction materials like bricks, steel cement etc., (iii) to assess the pattern of settlements in keeping with changing life styles, technological and economic advances, (iv) to examine the quantitative relationship that exists between the primary demand for housing and the direct employment opportunities, (v) to compute the multiplier effect on employment on other sectors of the economy — short term and long term, (vi) to evolve a national housing policy, allowing for regional variations in resources and needs

Meth : (i) Mathematical forecasting on the basis of data collected by first-hand sample surveys, (ii) two stage sample surveys comprising a sample of houses in order to determine the existing state of housing including design, material, resources etc. and a sample of households to assess the important determinants of the demand for housing as well as the occupational pattern to arrive at a cross section of the labour force engaged in housing, skilled and unskilled

Com : March, 1978

Ter : — (ongoing)

Deg : Nil

Madras Institute of Development Studies, Madras

151. Tenancy relations in Tamil Nadu

Obj : To study changes in tenancy relations of selected districts of Tamil Nadu over time

Meth : An empirical study based on (i) secondary data mainly comprehensive in village studies made earlier, and (ii) official sources of data

Com : 1978

Ter : 1979

Deg : M. Phil.

Madras Institute of Development Studies, Madras

152. Economic change and urbanisation

Reported in Bulletin, 1977, Vol. VII, Nos. 5 & 6, p. S. 4

153. A study of household saving patterns

Obj : Analysing the trends and pattern of household saving against macro background and probing into the causal factors

Meth : Use of secondary data provided by the RBI, NCAER and the C. S. O. and organising field studies at the micro level in Tamil Nadu

Com : October, 1974

Ter : September, 1979

Deg : Ph. D.

National Institute of Rural Development, Hyderabad

154. Block level planning for employment through integrated rural development: a study in Ibrahimpatnam block of Hyderabad district

Obj : (i) To prepare a model block plan to assess employment opportunities which could be generated in the block area, (ii) to evlove a suitable methodology for preparation of block plans for employment, (iii) to evolve suitable syllabus based on the methodology followed for this study for training block level planning officers

Com : —

Ter : July, 1978

Deg : Nil

155. Implementation of Drought Prone Area Programme in Kurnool district, Andhra Pradesh

Obj : (i) To make an inventory of the programmes taken up by different sectors under the DPAP in the district and assess how far the short and long term objectives of the programme had been achieved, (ii) to study the financial and physical achievements and spatial distribution of activities under different sectors of DPAP, (iii) to identify the factors responsible for success or failure of the programmes, (iv) to suggest a strategy for the implementation of the programme based on the study's analysis

Com : —

Ter : — (ongoing)

Deg : Nil

156. Policies and implementation of land reforms in India : a micro-level study in Kerala

Com : —

Ter : — (ongoing)

Deg : Nil

157. The study of impact of industrial and mining activities in Kiriburu- and Rourkela-Ranchi industrial zone

Com : —

Ter : — (ongoing)

Deg ; Nil

158. Action research project in DPAP district - Kurnool

Com : —

Ter : — (ongoing)

Deg : Nil

159. Working of lift irrigation co-operative societies in Andhra Pradesh

Com : —

Ter : — (ongoing)

Deg : Nil

160. Ceiling on agricultural holdings in India : a study

Com : —

Ter : — (ongoing)

Deg : Nil

161. Impact of land reforms on agricultural productivity

Com : —

Ter : — (ongoing)

Deg : Nil

162. Lead Bank's Group Loan Scheme for Small and Marginal Farmers in West Bengal

Com : —

Ter : — (ongoing)

Deg : Nil

163. Command Area Development Projects : a study

Com : —

Ter : — (ongoing)

Deg : Nil

164. Training for rural development : a survey

Com : —

Ter : — (ongoing)

Deg : Nil

165. Drought prone areas : a study

Com : —

Ter : — (ongoing)

Deg : Nil

166. Village adoption schemes in India

Com : —

Ter : — (ongoing)

Deg : Nil

167. Impact of land reforms on production and productivity - a pilot study in Andhra pradesh

Com : —

Ter : — (ongoing)

Deg : Nil

168. Transfer of technology in drought prone areas - a study of institutional factors

Com : —

Ter : — (ongoing)

Deg : Nil

169. Revitalising the agricultural extension programme - a study of organisational sturucture and process

Com : —

Ter : — (ongoing)

Deg : Nil

170. NIRD Village adoption scheme in Rajendranagar block

Com : —

Ter : — (ongoing)

Deg : Nil

EDUCATION

Madras University, Madras

171. A study the self-evaluation of college teachers

Obj : To study the pattern of self-evaluation and peer-evaluation among college teachers

Meth : (i) To construct a rating scale for evaluation of teaching a) by self and b) by person, (ii) to collect data on self and peer evaluation, (iii) to study the pattern of self-evaluation and peer evaluation, (iv) to find out correlation between self-evaluation and peer evaluation, (v) to find out the factors relating to evaluation

Com : August 13, 1978

Ter : May 30, 1979

Deg : M. Phil.

172. Students' expectations about instructional process — a study at the undergraduate level in colleges in Madras city

Obj : (i) To measure the students' expectations about instructional process, (ii) to correlate their expectations with the personality characteristics

Meth : (i) Constructing a rating scale on students' expectations about instructional process, (ii) after pilot study, administering it to nearly 400 students of various colleges of Madras city, (iii) analysing the results statistically

Com : August 8, 1978

Ter : May 31, 1979

Deg : M. Phil.

173. Construction of an instrument to measure college teachers' attitude towards their profession

Obj : (i) To construct an attitude scale to study the college teachers' attitudes, (ii) to measure the attitudes of college teachers, towards teaching profession, (iii) to correlate the social and educational background with the attitudes of teaching profession

Meth : (i) Collection of statements of attitudes, (ii) dimensalisation of attitudes, (iii) construction of an 'attitude scale', (iv) pilot study, (v) after pilot study, scale administered to 200 college teachers in the Madras city

Com : August 8, 1978

Ter : May 31, 1979

Deg : M. Phil.

174. Preparation of instructional module for developing teaching skills in higher secondary teachers

Obj : (i) To develop instructional module in history (package), (ii) to develop questioning and reinforcement skills in teachers, (iii) to assess students' achievement under modular instruction

Meth : (i) 24 schools randomly selected including private management, government, and corporation schools—boys, girls and co-educational schools included, (ii) preliminary observation of traditional teaching with a test at the end followed by the observation of the class after adminis-

tering the module, with a test at the end by the same teacher at the same class : the difference in the two methods is the gain

Com : August 8, 1978

Ter : May 31, 1979

Deg : M. Phil.

175. A study of teacher effectiveness through student evaluation

Obj : (i) To construct a rating scale for the evaluation of teacher effectiveness by students at the undergraduate level, (ii) to study the effect of feedback of student evaluation and its relationship with personality and experience of teachers, (iii) to determine the dimensions of teacher effectiveness as perceived by students

Meth : (i) Construction of a rating scale for student evaluation of teacher effectiveness for the undergraduate level of students, (ii) experiment : evaluation of teacher effectiveness (pre-test) — feedback to teachers belonging to the experimental group — evaluation of teacher effectiveness after one month (post-test) ; administration of Cattell's 16 PF to experimental group of teachers, (iii) factor analysis of the student evaluation for a sample of teachers for finding the dimensions of teacher effectiveness as perceived by students

Com : July 6, 1977

Ter : August 1, 1979

Deg : Ph. D.

176. indentification of strategies and their respective skills for college teaching

Obj : (i) To identify (a) teaching strategies, (b) teaching skills that characterise each of the identified teaching strategies, (ii) to prepare instructional material for the strategies, (iii) to determine criteria for the selection of strategies

Meth : Stage-I: Conceptualisation (identification of strategies and skills of teaching) : a) listing of items of teaching from a range of sources, b) analysis and classification of items, Stage-II : preparation of instructional material, Stage-III : experimentation to determine criteria, Stage-IV : analysis of data-correlation and multivariate analysis of variance

Com : August, 1977

Ter : June, 1980

Deg : Ph. D.

177. A study of the underachievers in Mathematics and the efficiency of the some of the programmed learning techniques in improving achievement in Mathematics

Obj : (i) To identify underachievers in mathematics in std. IX, (ii) to identify the correlates of underachievement, (iii) to develop programmed learning materials on a unit in mathematics for std. IX and validate it, (iv) to conduct experiments with the programmed learning material and find out the effect of its use

Meth : (i) Intelligence tests, achievement tests, personality inventory, diagnostic tests, questionnaire to

teachers etc. for collecting data, (*ii*) statistical measures — analysis of variance and of covariance, and factor analysis used in processing the data

Com : February 1, 1977

Ter : February, 1981

Deg : Ph. D.

178. A study of the psycho-social need of school going adolescent girls in rural areas

Obj : (i) To identify the psychological and sociological needs of school going adolescent girls in rural areas, (ii) to identify the pattern, sequence and persistence among the needs during the span of adolescence, (iii) to indicate suitable guidance programmes

Meth : (i) Need questionnaire to identify (a) the needs and (b) need satisfaction, (ii) adjustment inventory, (iii) self concept inventory, (iv) Socioeconomic Status Scale, (v) adolescent problem inventory, (vi) interview schedules for interviewing pupils

Com : August 1, 1976

Ter : August, 1980

Deg : Ph. D.

179. A study of potential drop-outs in rural and urban schools

Obj : (i) To identify the factors related to the phenomenon of drop-out from schools, (ii) to develop, on the basis of a knowledge of the factors relating to the phenomenon, a set of indicators / instruments for indentifying potential drop outs

Meth : (i) The phenomenon of drop-out analysed into 'drop out', 'push out', 'pull out', and 'stay out' instances, (ii) interviews with pupils, teachers, parents and school authorities and questionnaires used for data collection, (iii) case studies of typical instances, (iv) factor analysis for identifying and conceptualising the predominant cause of the phenomenon

Com : August 1, 1976

Ter : August, 1980

Deg : Ph. D.

180. The study of practices and potentialities of relating community and social service activities with *curricular programmes in science* in colleges in Tamil Nadu

Obj : To integrate the curricular programmes in science in the colleges in Tamil Nadu and community and social activities

Meth : (i) General survey of the curriculum of integrated community social service programmes in the colleges, (ii) content analysis of the college science curriculum with a view to exploring the potentialities of the curriculum for community development through social service programmes, (iii) in-depth case studies of a few selected successful and unsuccessful curriculum oriented community social service programmes, (iv) evolving a few models, (v) evaluation of the programme

Com : August 1, 1976

Ter : August, 1980

Deg : Ph. D.

181. Concept formation in geography

Obj : (i) To analyse the types of concepts in geography, (ii) to identify factors affecting the formation of the concepts, (iii) to interpret the process of formation of concepts, (iv) to develop teaching strategies for facilitating/ catalysing the formation of the concepts

Meth : (i) Survey of literature relating to concept formation, (ii) classifying types of concepts in geography, (iii) identifying by means of concept formation or sorting tests of Goldstein and Sheerer, Vogotsky, Berg and others and questionnaires, factors related to concept formation, (iv) interpreting on the basis of theories of concept formation the process of formation of certain concepts in geography, (v) developing instructional strategies for teaching the concepts

Com . February 1, 1977

Ter : February, 1981

Deg : Ph. D.

182. Teaching of English

Obj : (i) Surveying a given population for gifted children, (ii) identifying their aptitudes and interests, (iii) developing an enriched curriculum for different groups of the gifted children

Meth : (i) Survey with culture-free intelligence tests, Teacher Ratings and Tests of Creativity, (ii) identification of the range of interests of the gifted, (iii) developing an enriched programme for the different patterns of interests among the gifted, (iv) carrying out the programme and evaluating its impact

Com : August 1, 1976

Ter : August, 1980

Deg : Ph. D.

183. Difficulties in written English of students at the +2 stage in some of the higher secondary schools in the state of Tamil Nadu

Obj : To identify the difficulties in written English of students at the + 2 stage

Meth : (i) Areas of difficulty conceptualised at sentence and paragraph level — at sentence level spelling, punctuation, form and function of words, and at paragraph level homogenity of subject matter, tone and form, organisation etc. are considered, (ii) intelligence, creativity, reading interests, study habits, achievements in various subjects hypothesised as related to difficulties in written English, (iii) diagnostic tests, free composition, etc. used

Com : February 1, 1977

Ter : February, 1981

Deg : Ph. D.

184. The place of Tamil in higher education curriculum in Tamil Nadu

Obj : (i) To examine the nature and extent of provision for study of Tamil in higher education curriculum in Tamil Nadu, (ii) to attempt a comparative study of such 'place' of Tamil in a historical perspective

Meth : Library research and historical research

Com : April 10, 1977

Ter : April 10, 1981

Deg : Ph. D.

185. University education for international understanding, co-operation, and peace and education relating to Human Rights and Fundamental Freedoms

Obj : (i) An international dimension and a global perspective in education, (ii) understanding and respect for all peoples, (iii) awarenss of the increasing global inter-dependence, (iv) understanding the necessity of international co-operation, etc.

Meth : (i) Survey of selected disciplines for the concept of international understanding etc., (ii) identification materials related to the theme, incorporating them in the syllabi at the undergraduate level and developing a curriculum at higher level for a separate course in International Education

Com : March 29, 1978

Ter : September 29, 1979

Deg : —

Madurai Kamaraj University, Madurai

186. Teaching competencies of college teachers

Obj : / Meth : (i) To draw personality profiles of the more competent and less competent college teachers based on scores in the instructional skills, (ii) to assess the teaching competence of 100 college teachers in a rating scale containing a list of instructional skills, (iii) to compare the high group (top 27%) and the low group (bottom 27%) on personality constraints and related variables

Com : July, 1977

Ter : July, 1982

Deg : Ph. D.

187. Decision making styles of principals and faculty morale

Obj : To identify the decision making styles of principals and their relationship with teacher morale

Meth : Questionnaire structured and administered to 100 principals; teacher morale questionnaire constructed and administered to 1000 college teachers and correlated

Com : October, 1978

Ter : October, 1980

Deg : Ph. D.

188. Vocationalisation at the higher secondary stage of the 10+2+3 pattern of education

Obj : To identify the needs of the industries in and around Madurai, analyse the needs into productive educational tasks and subtasks and develop training programmes for curriculum development, training methods, teaching ends and evaluation techniques

Meth : Questionnaire, interview schedule, observation schedule and experimental schedule for data collection and validation of curriculum materials (data relate to employment potential, industrial needs of trained manpower, proposed industrial expansion, employment patterns etc.)

Com : February, 1979

Ter : February, 1981

Deg : Nil

189. Affective tone of the primary class room (an International Year of the Child project)

Obj : To analyse the affective responses of the primary teachers and to enable the teachers to improve their affective interactions with students

Meth : (i) Structured observations, using a carefully designed instrument, (ii) feedback inferences to influence the behaviour of teacher

Com : January 1, 1979

Ter : December 31, 1979

Deg : Nil

190. Working of the semester system in Madurai Kamaraj University

Obj : (i) To assess the working of the semester system in college, (ii) to estimate the reactions of the principals, (iii) to suggest modifications needed for the efficient working of the semester system

Meth : (i) Semester evaluation questionnaire constructed; sample of 10 colleges among the 102 colleges selected; SEQ supplemented by interviews with the principal, some staff members and some students, (ii) statistical analyses

Com : September, 1978

Ter : January, 1979

Deg : Nil

Other Institutions

Institute for Social and Economic Change, Bangalore

191. A critical study in depth of the various measures taken by the Government of Karnataka (Mysore) in the field of primary education during the period 1947-72

Obj : To evaluate the efficacy of incentive schemes (midday meal schemes, attendance scholarship for girls, free supply of uniforms, textbooks and slates) (i) to determine the relationship between the presence of the incentive scheme(s) and regularity of attendance, (ii) to assess the relationship between the schemes and the rate of promotion in the primary school standards, (iii) to examine the relationship between the scheme (s) and the rates of drop out and repetition

Com : —

Ter : 1978

Deg : Ph. D.

192. A study of the utilisation of eductional facilities offered by the Government of Karnataka to the scheduled caste students

Com : 1975

Ter : —

Deg : Ph. D.

193. A study of returns from education to employed women in Bangalore city

Com : 1975

Ter : —

Deg : Ph. D.

194. A study of the factors influencing the achievement of VII standard students belonging to the scheduled castes and scheduled tribes with Kannada as medium of iustruction

Com : 1977

Ter : —

Deg : Ph. D.

195. Education, social mobility and social change among Muslim women

Com : 1977

Ter : —

Deg : Ph. D.

196. A study in depth of the continuation education programme run by some of the colleges and the Bangalore university and the motivational pattern of students who take up these courses

Com : 1977

Ter : —

Deg : Nil

197. Pre-primary schools in Bangalore city

Com : January 1978

Ter : —

Deg : Nil

198. Employment pattern among high school graduates of Bangalore city

Com : —

Ter : —

Deg : Nil

GEOGRAPHY

Madras University, Madras

199. Socio-economic factors and perception in reeidential decision making among women teachers

Obj : To find out the role of women teachers in the city of Madras in residential selection, to assess the part played by socio-economic factors and perception in this regard

Meth : (i) Data collected through questionnaires: three institutions representing three cross sections of women teachers with different educational and income levels selected, (ii) total survey of these institutions

Com : August 28, 1978

Ter : July, 1979

Deg : M. Phil.

200. The role of periodic markets and transport in Virudachalam taluk, South Arcot district, Tamil Nadu

Obj : (i) To find out the importance of the rural market, (ii) the role of transport, (iii) the role of periodic market and transport in the rural economy

Meth : (i) Identification of rural markets having considerable population, (ii) primary survey through questionnaires for collection of market information, (iii) collection of transport data from reports, (iv) combined effect examined through the index method

Com : June, 1977

Ter : —

Deg : M. Phil.

201. Locational analysis and banking services in Madras city

Obj : To examine (i) the spatial distribution of all nationalised banks in the city, (ii) diffusion of bank service since 1950, (iii) correlation between the land use pattern, density pattern and the diffusion of banks, (iv) comparison between the types of services and periodicity of different banks

Meth : Through (i) base map of Madras city, (ii) map showing the spatial distribution (iii) map showing the diffusion, (iv) superimposition of above maps to get results

Com : 16th July, 1977

Ter : —

Deg : M. Phil.

202. Analysis of spatial distribution of pavement markets - case study of George Town in Madras city

Obj : (i) To analyse the location and spatial pattern of pavement markets, (ii) to study socio-economic background of the sellers / buyers in pavement markets, (iii) to analyse business turn over, (iv) to find out the problems associated with pavement markets

Meth : (i) Secondary data collected from published reports, (ii) primary survey conducted to attain above objectives

Com : August 21, 1978

Ter : July, 1979

Deg : M. Phil.

203. Activity spaces and residential preferences

Obj : (i) To identify the activity spaces and the residential preferences of the people, (ii) to analyse the perception, attitude and behaviour of the people of the study area

Meth : (i) Identification of variables responsible for action spaces; assumption in favour of the perception and behaviour, (ii) data collection through questionnaire, (iii) suitable quantitative techniques for analysis

Com : August 28, 1978

Ter : July, 1979

Deg : M. Phil.

204. Attitude towards locational choice and mobility of slum dwellers and their associated problems

Obj : (i) To study the attitude of the slum dwellers towards locational choice, (ii) to study the socio-economic factors which influence the locational choice and mobility, (iii) to measure socio-economic handicaps and barrier to the slum dweller movement

Meth : Primary data collected through schedules administered to slum dwellers

Com : 21st August, 1978

Ter : July, 1979

Deg : M. Phil.

205. Spatial and temporal concentration of pavement markets - a case study of North Madras

Obj : To understand the factors which influence the spatial and temporal concentration of pave-vending in certain localities of North Madras

Meth : (i) Primary survey conducted to get informations regarding the pavement markets' vendors and buyers through questionnaires, (ii) primary data supported by

secondary data collected from M. M. D.

Com : August 21, 1978

Ter : July, 1979

Deg : M Phil.

206. Spatial location and distribution of pavement markets - a case study of South Madras

Obj : To study the spatial location and distribution of pavement markets in terms of their size, spacing, periodicity and function, types of goods handled and other problems

Meth : Collecting primary data through interview schedules; secondary data from census

Com : August 21, 1978

Ter : July, 1979

Deg : M. Phil.

207. Slum environment

Obj : (i) To analyse the nature of physical and non-physical evironment of the slum, (ii) to study the slum dwellers' behaviour in relation to slum environment, (iii) to bring out the major environmental problem of the slum areas

Meth : (i) Collection of primary data; secondry data obtained through questionnaires, (ii) statistical techniques and use of model units for analysis

Com : August 28, 1978

Ter : June 15, 1979

Deg : M. Phil.

208. Study of watershed management in the Upper Chennar Basin, Dharmapuri district Tamil Nadu

Obj : (i) To study the land and water management practices in the Upper Chennar Basin and its implications within and outside the catchment area, (ii) to suggest suitable agricultural practices

Meth : (i) Land use and water management studied by analysing the resource endowments, (ii) impact of present practices investigated, the benefit of the suggested plan analysed

Com : April 1, 1978

Ter : —

Deg : Ph. D.

209. Role of transportation network in the economic development of rural areas - a case study in Tamil Nadu

Obj : (i) To assess the role of changes in transport network and flow characters on the development of rural areas, (ii) to formulate a new investment strategy to attain minimum polarization in the spatial organisation of development

Meth : Network analysis — marking of areas where network structure has changed a lot; in this area, the role of transport on some selected variables in agriculture, industry-and settlement analysed

Com : August 1, 1978

Ter : —

Deg : Ph. D.

210. Land classification as a component of land reforms in Tamil Nadu

Obj : *(i) To find out loopholes in the Land Reform Act, (ii) to compare* the effect of land utilisation before and after Independence, (iii) to find out the bearing of yield, soil type, irrigation, manure on land utilisation and return

Meth : Taking five or six villages located in different soil conditions by sampling; ownership nature of land studied from village registers

Com : August 1, 1978

Ter : —

Deg : Ph. D.

211. Historico-cultural factors in the development process of a city - a case study of Thanjavur city

Obj : To analyse the impact of historico-cultural aspects in the development of the city and to study the morphology of the city

Meth : Literature survey and map analyses

Com : April 1, 1978

Ter : —

Deg : Ph. D.

212. Patterns of migration in a drought prone regions of Tamil Nadu

Obj : (i) To study the pattern of movement of population from rural to urban areas (ii) to determine how drought conditions in a region cause the movement population, (iii) to analyse the impact of population movement in the receiving areas

Meth : (i) Collection of secondary data from Census hand book, (ii) primary data from questionnaire, (iii) analysis of the above with relevant techniques

Com : April 7, 1978

Ter : —

Deg : Ph. D.

213. Urban development and environmental problems a case study of Coimbatore city

Obj : Analysing the development of the city, discovering the causes for problems such as air pollution, water pollution, traffic congestion, etc., and projecting their impact on the future

Meth : Collecting information regarding growth factors, pollution information collected from meterological units, P. W. D. and Tata Institutes; primary survey conducted regarding perception of people about pollution

Com : December 1, 1978

Ter : —

Deg : Ph. D.

214. Spatial efficiency of rural periodic markets : a case study of Dharmapuri district, Tamil Nadu

Obj : (i) To study the nature of existing market systems and spatial *arrangement of location, (ii) to* analyse spatial and temporal proximity and location efficiency

Meth : Relevant information and secondary data from published sources; market places listed from the taluk maps, Census etc., primary data collected through questionnaires

Com : September 24, 1977

Ter : —

Deg : Ph. D.

Osmania University, Hyderabad

215. Metropolitan Systems of India

Com : November, 1977

Ter : November, 1980

Deg : Nil

216. Urban growth and industrial locations : Hyderabad city

Com : November, 1978

Ter : November, 1979

Deg : Nil

217. Andhra Pradesh Planning Atlas Project

Com : September, 1978

Ter : March, 1980

Deg : Nil

Other Institutions

Institute for Social and Economic Change, Bangalore

218. Urban structure of Bangalore city : a spatial analysis

Obj : (i) To analyse the factors contributing to the ecological zonation within Bangalore city (ii) to provide a base for the formulation of the city's development strategy

Com : 1973

Ter : 1978

Deg : Ph. D.

219. The structure of an industrial city - a case study of Durgapur

Obj : (i) To study the ecological structuring of an industrial city within the framework of different structural models of residential zonation, (ii) to analyse the urban processes underlying the structure

Com : 1974

Ter : —

Deg : Ph. D.

220. Spatial interaction models : intra-city journey to work and services

Com : 1978

Ter : —

Deg : Nil

HISTORY

Annamalai University, Annamalai Nagar

221. George Washington's two administrations - a comparative study

Obj : To make a comparative study of George Washington's two administrations

Meth : Literature study

Com : September 14, 1978

Ter : September 14, 1979

Deg : M. Phil.

222. Nayaks of Vellore

Obj : To study the history of the Nayaks of Vellore between the 13 & 15th centuries

Meth : Study of inscriptions, journals, etc

Com : October 4, 1978

Ter : October 4, 1979

Deg : M. Phil.

223. History of Pondicherry upto 1600 A.D

Obj : A critical study of the region of Pondicherry upto 1600 A. D

Meth : Study of various sources, particularly inscriptions

Com : September 22, 1978

Ter : September 21, 1979

Deg : M. Phil.

224. Imperial Chola army and Navy

Obj : To examine the problems related to the imperial Chola army and navy

Com : October 4, 1978

Ter : October 3, 1979

Deg : M. Phil.

225. History of Thanjavur with particular reference to agriculture

Obj : To understand the reasons for change in the attitude to agriculture at present as compared to the Sangam period when it was viewed as the omnipotence of God

Meth : Analysis of epigraphical material

Com : Septemper, 1978

Ter : June, 1979

Deg : M. Phil.

226. Village administration in the Tamil country through the ages

Obj : To examine (i) whether the preservation of our civilisation and culture through the ages had anything to do with the old system of administration; (ii) whether the backwardness of the villages was due to the lack of proper administration

Meth : Descriptive method

Com : October 26, 1978

Ter : October 26, 1983

Deg : Ph. D.

PHILOSOPHY

Karnatak University, Dharwad

227. Some problems in interreligious dialogue

Obj : To consider certain religious controversies in idolatry, conversion, etc, and arrive at an understanding of the nature of religious controversy

Meth : The philosophical method: to consider the best representation of a religion rather than its actual practice, which may be disturbed through many personal and social factors

Com : June, 1977

Ter : June, 1980 (approx)

Deg : Ph. D.

228. Some problems in Dharma

Obj : Meth : To study the issues (formulated today) which are reflected also in the dharmashastra — especially Manu — involving study of the nature of Dharma, Samanya Dharma, Visesha Dharma, Varnaashrama, and their interrelationship

Com : July, 1974

Ter : December, 1979

Deg : Ph. D.

229. A study of the spirit of Indian thought through comparative studies with modern thought

Obj : To consider the features of Indian thought, philosophy, religion etc. which essentially separate them from the modern conception and thereby bring out the two alternative approaches to life in an important way

Com : August, 1974

Ter : — (in progress)

Deg : Ph. D.

230. Theories of Karma and original sin with special reference to the problem of evil

Obj : To give orientation to the idea and discipline of comparative religions

Com : August, 1974

Ter : August, 1979

Deg : Ph. D.

231. Some issues in Sankara Vedanta - in search of a new perspective

Obj : To give new orientation to the study of Indian philosophy through the study of the modern equivalents of the search for Moksha as well as the philosophical approach of Sankara

Com : June, 1978

Ter : June, 1981

Deg : Ph. D.

POLITICAL SCIENCE AND PUBLIC ADMINISTRATION

Karnatak University, Dharwad

232. Sixth Lok Sabha Elections, 1977

Obj : To study the Sixth Lok Sabha Elections in the Karnataka State as a part of the all India study sponsored by the Indian Council of Social Science Research, New Delhi

Meth : Consultation of documents and topical literature; participant observation; interviews with the respondents including leaders; case history

Com : 1977

Ter : 1979

Deg : Nil

233. State Assembly Elections, 1977-78

Obj : To study the Assembly Elections in Karnataka as a part of the all India studies of elections sponsored by the Indian Council of Social Science Rasearch, New Delhi

Meth : Consultation of documents and topical literature; participant observation; interviews with the respondents including leaders; case history

Com : 1977-78

Ter : — (in progress)

Deg : Nil

234. Semesterisation and syllabi reform in Political Science

Obj : To initate the programme of semesterisation and syllabi reform in Political Science, inform and train Political Science lecturers at the college level in the Karnatak University area, (A significant end product of the project was the preparation of a monograph for the information guidance and training of the college lecturers)

Meth : Lectures, group discussions, demonstration lessons, practice lessons, discussion and reformulation of the concerned syllabi of the various courses

Com : 1978

Ter : 1978

Deg : Nil

235. The Chickmaglur Constituency Lok Sabha Byelections

Obj : To examine the election process as a case study, as an extension or supplement to the study of Lok Sabha Elections in the Karnataka state

Meth : Consultation of the documents and topical literature; participant observation ; interviews with the respondents including leaders ; case history

Com . 1978

Ter : — (in progress)

Deg : Nil

236. The impact of the 20 point programme on the student community

Obj : To investigate the nature and character of the programme's impact on the student community

Meth : Consultation of documents and topical literature; participant observation; interviews with the respondents including leaders; case history; sample selected from among the postgraduate students of the Karnatak University

Com : 1977

Ter : 1979

Deg : Nil

Other Institutions

National Institute of Rural Development, Hyderabad

237. Evaluation of the working of Mahila Mandals in selected states

Obj : (i) To study the structure and functioning of Mahila Mandals, (ii) to evaluate their performance and pattern of utilisation of grants-in-aid received from the Govern ment, (iii) to suggest a model pattern which may be used in revitalising these mandals

Meth : Field study — states selected . Jammu and Kashmir, Punjab, Mizoram, Tamil Nadu and Gujarat

Com : —

Ter : —

Deg : Nil

238. Panchayath Raj and social change in Assam

Obj : To examine (i) changes in the pattern of leadership over a period of 15 years, since the system came into existence, (ii) pattern of people's participation in the developmental programmes, (iii) levels of modernisation of people in the plains and hill areas, (iv) value orientation towards developmental activities, (v) changes in the stratification pattern, (vi) social mobility

Com : —

Ter : —

Deg : Nil

239. Politics in an Indian Village

Com : —

Ter : —

Deg : Nil

240. Comparative study of rural leaders and non-leaders and leadership preferences

Com : —

Ter : —

Deg : Nil

241. Panchayath Raj elections : nomination process, elections campaign and voting behaviour

Com : —

Ter : —

Deg : Nil

242. Competing conceptual images of Panchayath Raj : a study in three states of India

Com : —

Ter : —

Deg : Nil

PUBLIC ADMINISTRATION

Kakatiya University, Warangal

243. Municipal administration in Andhra Pradesh - case study of a municipality

Obj : (i) To examine the structural patterns of a municipality and actual working of various structures within the municipality, (ii) to examine the impact of various forces operating inside and outside on the working of the different levels of the municipality, (iii) to suggest certain solutions for the reorganisation of the existing structures

Meth : Literature survey, participant observation, interviews with structured and unstructured questionnaires, analysing the typical decisions, cases and behaviours of officials and non-officials

Com : August, 1976

Ter : January. 1978

Deg : Ph. D.

244. A study of the administration of welfare programmes for scheduled castes in Andhra Pradesh

Obj : (i) Building up literature, (ii) testing the following hypotheses : (a) welfare programmes for scheduled castes have a differential impact on the urban and rural segments as well as different communities of scheduled casts, (b) the administrative system embloyed is much the same as that employed for regulatory work, (c) the personnel employed do not have a framework of values congenial to the job assigned

Meth : Litarature survey; data from government offices and scheduled castes welfare organisations ; interviews ; case studies

Com : 1976

Ter : — (ongoing)

Deg : Ph. D.

Other Institutions

National Institute of Rural Development, Hyderabad

245. Rural elite 1946-76 : a study in a district of Andhra Pradesh

Obj : To study the rural elite i. e. elected members of the Legislature, Parliament and Panchayath Raj institutions in the district in order to analyse the trend in the elite recruitment and socialisation process

Com : —

Ter : —

Deg : Nil

246. Survey of training institutions for community development and Panchayat Raj

Com : —

Ter : —

Deg : Nil

247. Reorganisation of administration at the district, block and lower levels

Com : —

Ter : —

Deg : Nil

PSYCHOLOGY

Andhra University, Waltair

248. Dream recall and personality

Obj : To find out (i) the relationships between dream recall and personality variables; (ii) relationship of personality to dream content (relationships studied for dreams collected by various methods — laboratory and home)

Com : 1972

Ter : —

Deg : Ph. D.

249. Normative study from Indian samples (home dreams)

Obj : To develop norms for Indian home dreams, comparing them with those of the American home dreams already prepared by Dr Van de Castle and Dr. Hall

Com : 1968

Ter : —

Deg : Ph. D.

250. Subsensory perception and extrasensory perception

Obj : To find out the relationship between subsensory perception (SSP) *and extrasensory perception* (ESP)

Com : 1973

Ter : —

Deg : Ph. D.

251. Normative study of dreams

Obj : To develop norms on dream content of dreams collected by various methods such as REM awaking, morning reports in the laboratory and dreams collected by the diary method at home

Com : 1973

Ter : —

Deg : Ph. D.

252. Target preference and the role of Psi among defence personnel

Obj : To study the interaction between subject and target variables (variables include attitudes towards ESP, personality factors of the subjects, the relevance of targets to the subjects)

Meth : (i) An ESP *symbol precognition* test and a free response picture target test employed to assess the ESP ability of the subjects, (ii) pilot study on the defence personnel doing a course at Staff College, Wellington, Nilgiris District

Com : 1973

Ter : —

Deg : Ph. D.

253. Operation of Psi during an examination situation

Meth : (i) Study-1 — subjects tested for their psi ability in a classroom by means of a vocabulary ESP test; Study-2 — two forms of vocabulary tests, form A and form B standardised; (ii) form A administered to the students of a local college during the time of their English examination along with three other questionnaires to measure a) sheep-goat attitude, b) attitude towards examination and c) attitude towards the teacher; form B administered on an identical sample during the regular class hours instead of the examination situation, (iii) data scored and computed for testing the major hypothesis of ESP and vocabulary test, ESP and examination situation and other relevant variables

Com : 1976

Ter : —

Deg : Ph. D.

254. The effect of transcendental meditation on memory

Obj : Meth: (i) To train a group of students on Transcendental Meditation and give them tests on Retroactive and proactive inhibitions, (ii) a second group of students (control group) not taking transcendental meditation course tested on retroactive and proactive inhibitions, (iii) comparison on the two groups made to see whether transcendental meditation has any effect on the me-mory processes of retroactive and proactive inhibitions

Com : 1977

Ter : —

Deg : Ph. D.

Annamalai University, Annamalai Nagar

255. A study of scholastic achievement and intelligence of adolescent girls in secondary schools

Obj : To study the factors involved in the scholastic achievement of the adolescent girls in relation to intelligence

Meth : (i) Tools used : modified Alpha Examination Form 9, Socio - economic Status Scale (SES), (ii) survey method : three groups of students (numbering 403) from standards IX, X, and XI selected and divided into five social classes based upon their SES score to find out the effect of SES on the achievement of students in relation to intelligence

Com : September, 1977

Ter : — (in progress)

Deg : M. Phil.

256. A study of school achievement of the secondary school students in relation to socio-economic factors and personality

Obj : To study the factors involved in the school achievement of the students in relation to personality and SES (Socio-economic Status Scale)

Meth : (i) Tools used: personality inventory and SES scale, (ii) survey method: three groups of students (numbering 402) from standards IX, X and XI selected and divided into five social classes based upon

their SES score to find out the effect of SES on the achievement of students in relation to personality

Com : September 1977

Ter : — (in progress)

Deg : M. Phil.

257. A study of attitude towards family planning and birth control among college students and their parents in Tamil Nadu

Obj : To measure the relationship of family planning attitude of the students and their parents to religion, personality and social attitudes and the relationship of parent-child

Meth : A family planning attitude scale constructed ; Dr. Rajamanikam's religious attitude scale, personality scale and Egsenck's scales used

Com . November 8, 1967

Ter : —

Deg : Ph. D.

258. A study of perception, bodily changes and personality

Reported in Bulletin 1977, Vol. VII, Nos. 5 and 6, pp S. 22-23

Madras University, Madras

259. Bilingualism - effect on cognitive abilities in bilingual Children

Obj : To know whether bilingual education has an adverse or influencing effect on children

Meth : (i) Using questionnaires to tap the cognitive abilities of children, (ii) other testing tools

Com : April, 1978

Ter : April, 1981

Deg : Ph.D.

260. Organizational communication

Obj : To study the relationship of communication with attitudes, values, behaviour of employees in an organisation

Meth : (In the process of devising statistical tools, appropriate methods and logical approach)

Com : July, 1978

Ter : July, 1981

Deg : Ph. D.

261. An investigation of the factors related to academic achievement

Obj : To study the factors that contribute to high academic achievement

Meth : Administering questionnaires to graduate students from different colleges and use of statistical tools for analysis

Com : August 1977

Ter : August, 1980

Deg : Ph. D.

262. Effect of personality and expectation on the visual sensory discrimination conflict

Obj : To explore the effect of expectancy and personality on the sensory and cognitive function in an experimentally hindered visual discriminated conflict situation

Meth : Laboratory experimentation with a randomized block design, comparison of the results with analysis of variance

Com : August, 1977

Ter : August, 1979

Deg : Ph. D.

263. Achievement related variables in entrepreneurial success

Obj : To find out the various motivations, their levels in relation to entrepreneurial success and failure.

Meth : Interview, questionnaire ane projective methods; entrepreneurial growth and success related to motivations—these variables correlated to failure, eg. existence of sick units; existence of significant differences in certain motivations indicative of necessary lines of action such as provision of guidance and training facilities to sick units

Com : August 1, 1977

Ter : August 1, 1979

Deg : Ph. D.

264. Motivational patterns of managers in different organisations

Obj : (i) To study the different motivational patterns of middle level managers in different organisations (ii) to attempt improvement on managers' motivation for work

Meth : (i) A questionnaire which measures the motivational patterns. (ii) selection of a sample of middle level managers in different organisations, both government and private, (iii) factor analytic study of the motivational patterns, (iv) comparison of the differential motivational patterns in different organisations

Com : April 1, 1978

Ter : April 1, 1980

Deg : Ph. D.

265. A study of cognitive styles in relation to learning and personality

Obj : To determine the influence of cognitive styles on learning and personality among school children (boys and girls)

Meth : (i) Tests to determine cognitive styles, learning styles and personality, (ii) experimental study with a factorial design, (iii) analysis of variance to analyse the data

Com : August, 1978

Ter : August, 1980

Deg : Ph. D

266. A study of job-involvement, satisfaction and performance in relation to some personality factors at the managerial level

Obj : To study the relevance of some of the personality factors like creativity, dogmatism, locus of control or achievement motivation to managerial satisfaction and performance

Meth : (i) A 2X2X2X2 factorial design adopted, (ii) sample of about 500 managers administered suitable tests of personality and of job-factors, (iii) using the technique of median-cut, subjects high and low on each of the four personality factors identified, (iv) analysis made for the effect of the personality factors and their interaction on each of the job factors, viz., involvement, satisfaction and performance

Com : July, 1978

Ter : July, 1980

Deg : Ph. D.

SOCIAL WORK

Madras University, Madras

267. Mental health of the tribal community

Obj : (i) To find out an indicator of mental health, (ii) to develop tools for measurement of mental health variables

Meth : Observation, field work and interviews

Com : July 31, 1977

Ter : July 31, 1980

Deg : Ph. D.

268. Drug addiction among the student community in the city of Madras

Obj : (i) To assess the prevalence of psychoactive drugs commonly used by students for euphoric effects and as anti depressants, (ii) to study the causal factors of drug dependence

Meth : A cross section of students representing different colleges from the different zones of Madras city identified and interviewed using as interview schedule

Com : December, 1978

Ter : March, 1979

Deg : Nil

SOCIOLOGY

Kerala University, Trivandrum

269. Family Planning and population - in different phases

Obj : To study different aspects of the problem with special reference to the acceptors of family planning

Meth : Survey research

Com : —

Ter : — (ongoing)

Deg : Nil

270. Development of social welfare services in Kerala

Obj : (i) To study the level of utilitarian value of social welfare services by the beneficiaries in Kerala since Independence, (ii) identification of welfare needs of various social units, (iii) to assess the satisfaction of such needs from the facilities available at present

Meth : Use of primary and secondary data

Com : June 25, 1978

Ter : June, 1979

Deg : Nil

271. Study of Old Age Pension Scheme in Kerala

Obj : To evaluate the scheme of Old Age Pension implemented by the state

Meth : Use of secondary and primary data; questionnaires administered to beneficiaries and officials of the scheme

Com : December 17, 1978

Ter : October, 1979 (approx.)

Deg : Nil

Madras University, Autonomous Post Graduate Centre, Coimbatore

272. Demographic Characteristics of the Kota Tribe in Nilgiris

Com : July, 1978

Ter : May, 1979

Deg : M. Phil.

273. A study of the family patterns in four villages in Madurai district

Com : July, 1978

Ter : May, 1979

Deg : M. Phil.

274. Rural indebtedness in Udumal-pet area

Com : July, 1978

Ter : May, 1979

Deg : M. Phil.

275. A study of the Jajmani system in one of the villages near Coimbatore

Com : July, 1978

Ter : May, 1979

Deg : M. Phil.

276. A study of the construction workers in Coimbatore

Com : July, 1978

Ter : May, 1979

Deg : M. Phil.

277. Differential fertility in Coimbatore city

Com : September, 1978

Ter : —

Deg : Ph. D

278. A study of leadership pattern in primary credit co-operatives

Com : November, 1978

Ter : —

Deg : Ph. D

279. Environmental health in urban community

Com : September, 1978

Ter : —

Deg : Ph. D.

280. The role of health education in the field of coronary heart disease

Com : April, 1979

Ter : —

Deg : Ph. D.

281. Urban ecology of selected cities in Tamil Nadu

Com : February, 1979

Ter : —

Deg : Ph. D.

282. Slum improvement and community organisation in Madurai city

Com : April, 1979

Ter : —

Deg : Ph. D.

283. Bonded labour among the scheduled castes and scheduled tribes in Andhra Pradesh

Com : January, 1979

Ter : —

Deg : Nil

284. A study of the wage structure of the agricultural labourers in the villages around Coimbatore city

Com : March, 1979

Ter : —

Deg : Nil

285. Attitude of the scheduled castes towards Prohibition

Com : October, 1979

Ter : —

Deg : Nil

286. Attitude of the wives of textile workers in Coimbatore city towards Prohibition

Com : October, 1978

Ter : —

Deg : Nil

287. Caste setting in a new housing colony in Coimbatore city

Com : July, 1978

Ter : —

Deg : Nil

Madurai Kamaraj University, Madurai

288. A study of social mobility of scheduled castes in Madurai District, Tamil Nadu

Obj : To find out (i) the relative patterns of social mobility of scheduled castes in Madurai District vis-a-vis other numerically dominant non scheduled castes (ii) the class identities of scheduled castes and other castes at the structural level, (iii) the economic and political networks in the agrarian market economy that help or hinder mobility of scheduled castes vis-a vis other castes; (iv) the intra-caste differential mobility among scheduled caste groups, their causes and consequences for the larger scheduled caste group; (v) the causes for overall mobility of scheduled castes and the consequences of such mobility for scheduled castes and other caste groups

Meth : Historical and structural-functional method; data collection through field work; observation, interview and survey research

Com : October 3, 1978

Ter : April 3, 1980

Deg : Nil

289. Socio-journalistic aspects of regional newspapers - a comparative study of Tamil and Malayalam dailies

Obj : To study (i) the phenomenon of differences in newspaper content and style according to the region, (ii) the role of social values in the content of newspaper, (iii) slanting of the news according to the situation, (iv) the journalistic style of newspapers of different regions

Meth : Content analysis of the selected sample of newspapers over a period of ten years

Com : January, 1979

Ter : June, 1979

Deg : Nil

290. The changing social values and press : a study of the influence of changing individual values and its effect on the popular journals

Obj : To analyse some aspects of the unidentified area of Sociology of journalism e. g. changes in content in terms of quality and quantity, exploitation of individual weaknesses etc

Meth : (i) From the Malayalam weeklies two oldest ones selected according to the circulation, (ii) the study covers a period of 35 years starting from the pre-Independence days, (iii) two weeklies from each year selected for thorough analysis using the method of content analysis

Com : January, 1979

Ter : July, 1979

Deg : Nil

Other Institutions

Institute for Social and Economic Change, Bangalore

291. The role of sociological factors in industrial enterpreneurship : a case study of a small scale textile industry in a Karnataka town

Obj : To examine the manner in which sociological factors promote or demote entrepreneurship in the case of weaving and non-weaving castes in the textile industry

Com : 1974

Ter : — (ongoing)

Deg : Ph. D.

292. Social mobility in Bangalore city

Com : 1976

Ter : — (ongoing)

Deg : Ph. D.

293. A sociological study of the functioning of trade unions and their leadership in a Bangalore factory

Com : 1973

Ter : — (ongoing)

Deg : Ph. D.

294. Education as a leverage of social mobility among ex-untouchables

Com : 1974

Ter : — (ongoing)

Deg : Ph. D.

295. Irrigation and social change in the region of North Karnataka

Com : 1974

Ter : — (ongoing)

Deg : Ph. D.

296. Leadership and cultural and social change in Tamil Nadu in recent years : a case study of Shri M.G. Ramachandran

Com : 1974

Ter : — (ongoing)

Deg : Ph. D.

297. Changing agrarian relations in Karnataka : a case study in a taluk

Com : 1977

Ter : — (ongoing)

Deg : Ph. D.

298. Politics of poverty

Com : December, 1977

Ter : —

Deg : Nil

299. Development and change in 2 or 3 villages in Bangalore district

Com : July, 1976

Ter : —

Deg : Nil

INTERDISCIPLINARY RESEARCH PROJECTS

Calicut University, Trichur

300. A geoeconomic survey of Lakshadweep

Obj : To make a comprehensive study embracing the 20 islands of Lakshadweep, its people and their economy, compute the

island's income, study the consumption pattern, estimate savings, study institutional and social changes in the island

Meth : (i) Literature survey, (ii) household sample survey covering 10% of the 9 islands which are inhabited

Com: August 1, 1977

Ter : August 1, 1980

Deg : Ph. D.

Madras University, Madras

301. Alienation, education and the social order (in the context of social change in India).

Obj : To develop a theory of education integrating tradition and modernity

Meth : Theory-building — develop a theory of education out of a conception of man integrating compatible elements of tradition and modernity

Com : August, 1977

Ter : 1979 (approx.)

Deg : Ph. D.

Indian Institute for Regional Development Studies, Kottayam

302. Women workers in the unorganised sector of coir industry in Kerala

Obj : (i) To assess the socio-economic conditions of women workers in the industry, (ii) to focus on socio-economic problems such as employment, unemployment, working conditions etc. and also cover cultural and domestic problems, aspects of family life, family planning, status of women in the family etc.

Meth : (i) Primary data collected through a sample of 400 woman workers in the unorganised sector of coir industry in Kerala, namely primary sector and the secondary sector or manufacturing sector, (ii) primary sector further divided into (a) retting (b) extraction of fibre (c) spinning, (iii) stratified random sampling covering 6 districts used

Com : February 16, 1977

Ter : February 15, 1978

Deg : Nil

303. Women workers in the cashew Industry in Kerala

Obj : (i) To collect socio-economic data on the conditions of women workers in the cashew industry in Kerala, (ii) to cover problems of employment, unemployment, levels of income, consumption, indebtedness etc. in this study, (iii) to examine the nature of their work, wages, service conditions, health, housing and general standards of living, (iv) to ascertain facts and opinions on such questions as marriage, divorce, dowry, family planning and status of women in the family

Meth : (i) Primary data collected through a sample study of 300 women workers in the cashew industry distributed between the organised sector (200) and unorganised sector (100), (ii) methodology one of stratified random sampling with respondents distributed in the three cashew districts, Trivandrum, Quilon and Alleppey, both in the organised and unorganised sectors

Com : March 16, 1977

Ter : March 15, 1978

Deg : Nil

Others

Karnatak University, Dharwad

304. A project on SITE (Satellite Instructional Telecast Education) is in progress

Com : —

Ter : —

Deg : —

DEVELOPMENT ADMINISTRATION

Institute for Social and Economic Change, Bangalore

305. Cooperative organisation and management for agricultural development in Nepal

Obj : To examine the existing organisational set up and to see to what extent and in which manner the management perceptions could be used to improve the field situation

Com : 1976

Tre : —

Deg : Ph. D.

National Institute of Rural Development, Hyderabad

306. Evaluation of applied nutrition programme

Com : —

Ter : —

Deg : Nil

307. Human and social consequences of IADP

Com : —

Ter : —

Deg : Nil

308. Impact of developmental television through satellite

Com : —

Ter : —

Deg : Nil

309. Community Development in India from 1952-1974 - a study

Com : —

Ter : —

Deg : Nil